

Environmental Scarcity and State Capacity

The Conflict of the Niger Delta

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Preface

The theme of this thesis was chosen from my curiosity around what it takes for a conflict to erupt. It is sometimes hard to believe that the world is not more violent than it already is. Exploring the library of the University of Witwatersrand, South Africa, I came across a book with alternative theories of international politics, and I started a theoretical investigation very much in line with my own ideas.

Looking in the news I found my case. 2005 marked the 10th anniversary of the execution of environmental rights activist Ken Saro-Wiwa. 2006 turned out to be the year that oil prices reached an all time high as the violence continued in the Niger Delta. Starting in August 2005 and coming to an end in May 2006, the writing process has been both interesting in following the situation and challenging in navigating through the information. In this final result I have limited myself to 30 123 words.

I would first of all like to thank my supervisor Karin Dokken (Autumn 2005-Spring 2006) for all her help and guidance, and for railing me in when it was needed. I also want to thank Jørgen Løvlie and Yngvild Prydz for taking time to proof-read and giving me input.

To everyone else who has contributed positively to the writing process, I extend my deepest appreciations. The university experience would not have been the same without the company and support of my friends. Special thanks to Andrew for asking the right questions and keeping my eye on Africa, Caroline for housing me and always being interested, and Kirsti and Olav Løvlie for all their support.

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1 Background

"We are tired of living by the river bank and washing our hands with saliva."

[Marshall Harry]

1.1 Introduction

Little is known about exactly how and why conflicts arise. It is complex, ambiguous and different in every case, and people taking up arms often have more than one reason behind it. One possible pathway to rebellion and civil strife identified by researchers is how people potentially rebel over the loss of livelihood and the worsening of their everyday conditions. When the natural environment which people live off is tarnished, they will naturally feel a sense of deprivation. In these circumstances, it's not hard to imagine that places where the living conditions are far from satisfying for the population would be more vulnerable to a change for the worse. If we look at the African continent, it is facing several challenges in this regard that most of the West has been spared. There is not only the enormous poverty and the bloodsheds of multiple civil wars and the troublesome transitions to democracy, but the resources of the land and the livelihood of people are disappearing at an alarming rate. Desertification, deforestation and the water supplies problem is part of the ever present land degradation and is only fuelled further by the rapidly increasing population. Are these conditions that, in the worst case scenario, could be a factor in triggering a conflict?

The form and effectiveness of the institutions of governance is also one characteristic that separates Africa from the western world, and could be a factor that determines the vulnerability and adaptability of a society that is faced with environmental stress. In countries where the authorities are not as prepared to handle the extreme consequences that the degradation process entails, the scarcity of resources might worsen the political situation further. One possibility is that people start blaming the authorities for their grievances, the institution in charge of redistribution. To govern things and resources and men in their relationship to them when there are no resources might in a sense be hard, but what then if the regime in place doesn't respond to the challenges it's faced with in a positive way?

One conflict that appears to have elements of environmental degradation as a cause is the fighting that takes place in the oil rich Niger Delta in Nigeria. Since the 1990's, the region has degenerated into a dangerous theatre of violent conflict, sustained by ethnic militias, tribal warlords, misguided youths and ethnic groups have battled each other over local governance and the control of natural resources according to Samuel A. Igbatayo (2004/2005). Nigeria is the most populous country in Africa and is predicted to double its population in the next 20 to 30 years (Homer-Dixon 1999:55). The major effect on the environment in the Niger Delta however, is the oil production. Several of the different groups live in conditions described as an *environmental nightmare* (Watts 2004:287).

Knowing the complexity of investigating any conflict, I wish to look at the relationship between environmental degradation and violent uprising from the people affected. To get a broader understanding of the conflict in the Niger Delta, I want to investigate what effect an African democracy has on this type of situation.

1.2 Theoretical Framework

1.2.1 The Possible Cause of Conflict

There is a myriad of theories covering the paths to conflict. There is also a significant amount of literature covering the relationship between environmental degradation and violent conflict, even though the school of thought is relatively new. A well-known researcher on the subject is Thomas Homer-Dixon who has developed a theory encompassing a causal link between the degradation of renewable resources and domestic armed conflict, which will be my main point of departure. Large-scale human induced problems have long term effects and are often irreversible, and Homer-Dixon outlines four social effects as a result, decreased agricultural production, economic decline, population displacement and the disruption of legitimized and authoritative institutions and social relation (1991:90-98). In this theoretical perspective, environmental scarcity acts mainly by generating these intermediate social effects, and these effects are often interpreted as a conflict's immediate causes.

The factors that make the basis for this line of thinking can be witnessed all over the world today, but especially in the less developed states. *Over 90 percent of the expected population growth will take place in developing countries, in which the majority of the population is often dependent on local renewable resources like cropland, forests and fresh water supplies* (Homer-Dixon and Blitt 1998:1). And this is why researchers predict that environmental scarcity will have a larger impact on violent conflict in the third world. An increase in the population of an area and the scarcity of resources, both have an effect on the demand for the resource that is scarce. In other words, an increase in the number of people means that each gets a smaller share of the resources. Put in a third world context, both scenarios have devastating consequences, and working together even more so. Resources that are vital for survival are disappearing, and there is not enough to go around. A sense of deprivation will be translated into grievances if individuals or social groups come to blame or resent others for their predicament and it is these grievances that may be directed against the state or other social groups (Kahl 1998:87).

The prediction is that environmental change could in time cause a slow deepening of poverty in poor countries, which might open bitter divisions between classes and ethnic groups, corrode democratic institutions and spawn revolutions and insurgencies (Homer-Dixon 1998:343). The resources that remain are often controlled by powerful interest groups and elites, leaving even less for the majority of the population (Homer-Dixon and Blitt 1998:1). Also worth considering in this regard is the predictions of another scholar on the subject, Michael T. Klare (2002) argues that the wars of this century will be fought not over ideology, but over dwindling supplies of precious natural commodities.

1.2.2 Governing the Scarcities

I will adopt the underlying assumption that the connection between scarcities and conflict is not a simple one, because environmental scarcity does not inevitably or deterministically lead to social disruption and violent conflict (Homer-Dixon and Blitt 1998:7). The way that this works, is that scarcities interact with other factors in a society, and together they might trigger conflicts. But naturally there are places where

civil strife erupts where there is no environmental degradation and there are conflicts where degradation is not a factor in the eruption. Is there a possibility that there are conditions in a country that either slows down or escalates the pathway from degradation to conflict?

Wenche Hauge and Tanja Ellingsen (1998) have pointed to some methodological weaknesses in the theories of researchers indicating that growing scarcities of renewable resources can contribute to conflict. The obscurity factor of the paths of causality is highlighted and they find that the variables that “best” explains conflict are the country not being a democracy and the level of economic development. But even if the regime type and the economic development have a higher explanatory power than environmental scarcity, they still find significantly more conflict where there is environmental degradation and high population density.

From the administrative point of view, environmental decline sharply raises financial and political demands on government by requiring huge spending on new infrastructure (Klare 1998:73). Hauge and Ellingsen also find that there is a positive link between democracy and environmental preservation (1998:304). Ted Gurr’s general thesis is that just as there are ultimate ecological constraints on economic growth, political constraints weigh heavily on what might be achieved collectively in the face of serious scarcity (1985:53), and in addition to group conflict as a consequence of scarcity, he lists the viability of the democratic state (ibid:54).

Colin H. Kahl (1998) calls the factors producing scarcities in an area *demographic and environmental stress*, and as Homer-Dixon he also points to how the effect of this can lead to conflict. Kahl claims however, that the mere existence of demographic and environmental stress is not enough to spark violent clashes. He puts forward a variation of the theory linking grievances and conflict which he calls *State Exploitation Hypothesis*. He upholds that the two major hypotheses that link population growth and environmental degradation to civil strife are incomplete. He claims that the deprivation hypothesis where social upheaval fuelled by hunger poverty and unemployment significantly over-predicts incidents of civil strife, and the state weakness hypothesis where increasing societal demands from scarcities cause conflict under-theorises the state (1998:81-83). The major point of his state exploitation hy-

pothesis is that states need not totally collapse for population growth and environmental pressures to produce internal violent conflict. Elites in a country can possibly try and manipulate the effects of the scarcities to their advantage.

1.2.3 Democracy: State and Governance in an African Context

The democratization of Africa has been a slow process. It seems like the adaptation of a western form of multi-party system in Africa has become the ultimate goal in the international community, and not as a mean to fight the fundamental problems of the African state such as corruption and the growing exclusion of social groups from the benefits that the state still represents (Bøås and Dokken 2002:62). Jean-Francois Medard identifies the African state as neo-patrimonial, a kind of contradictory and variable combination of patrimonial and legal-rational dominations¹ (1996:78). The neo-patrimonial state has a formal bureaucratic structure, but its functioning on personal connections. Put in another way, the bureaucracy works on personal power and there is no distinction between an office and the man who works there and the administrator is favouring his “own” people.

What seems clear is that the African democratic state can not be looked at the same way as the western state. There is a problem of transferring the theoretical outlooks from one reality to another. *The African state does not fit the traditional ideal westphalian model of the state where the sovereignty of the state is a central principle* (Bøås and Dokken 2002:36). When the African state is described as ‘failed’, ‘weak’ or ‘quasi’, it is the result of it being compared to the western state. The African experience is unique and requires its own way of thinking. For example, Patrick Chabal and Jean-Pascal Daloz (1999) claim that the state in Africa was never properly institutionalized because it was never significantly emancipated from the society, and African societies are essentially plural, fragmented and organized along vertical lines. It is my view that both how the state is viewed and the thoughts on how the bureaucracy works are important factors of the African state and the functioning of African democracy that I will consider in the given context.

¹ Max Weber identifies three types of domination: Legal-rational, charismatic and traditional.

1.3 Empirical Background

1.3.1 Nigeria

Nigeria gained its independence from Great Britain in 1960 and after years of different military regimes it made the transition to civilian rule in 1999. Today it has a federal system, it consists of 36 states and it is the largest and most populous country on the African continent. The country is a natural choice of case because it has both severe environmental stress brought on by oil production and there are also numerous reports on different incidents of violence in the Niger Delta, which is the place most affected by the degradation of natural resources. It is a country with a grim history of violence and secessionism, divided by ethnicity and religious beliefs which brings additional challenges to the new democracy.

Like many other third world nations, Nigeria also struggles with widespread corruption and the rights to land is a volatile issue. The social function of a regime of property rights is to minimize conflicts by identifying claimants, and to regulate access to natural resources through an institutional and/or legal structure. In Nigeria it is called the Land use act (Kolawole 2002:110). *In Nigeria, the control of government often represents virtually unaudited control over resources* (HRW 2003:2). When it comes to redistribution, the laws of the Nigerian federation direct the income from production back to the states. The 1999 constitution provides that at least 13 percent of the revenue derived from natural resources should be paid to the state where it was produced (ibid).

Clement Ikpatt predicts that the most potentially devastating effect of the conflict in the Niger Delta is to the democratic concepts of federalism (NDC). It is through this system that the resources are redistributed and it is a volatile and much debated issue in the country. The borders of the different states have been changed and revised several times. The argument in favour of a federal division of the country is that it is a divided nation linguistically, culturally, ethnically and religiously so the way of rule should mirror this complexity. On the other hand, in reality Nigeria is governed in a centralized manner and the federal structure serves no real function, and several observers has labelled it as 'quasi-federalism' (see for example Igbo Natufe).

1.3.2 The Conflict of the Niger Delta

The Niger Delta, a lush of mangrove swamps, rainforests and swampland is the site of rich oil and natural gas reserves in Nigeria. Oil accounts for about 98 percent of Nigerian exports and about 83 percent of government revenue (Countryreports.org, Nigeria). Besides bringing wealth to the country, it is not easy to contest that the oil extraction in the delta region has a negative impact also by causing severe environmental degradation. The main environmental challenges result from oil spills, natural gas flaring and deforestation (EIA 2003). Particularly threatened is the mangrove forest of Nigeria, the largest in Africa and 60 percent of which is located in the Niger Delta. Also facing extinction are the fresh water swamp forests of the Delta, which at 11700 square kilometres are the most extensive in West and Central Africa. The local people depend on this ecosystem for sustenance (Onduku 2001).

During the military rule, several environmental activists were captured and hanged. One of them was Ken Saro-Wiwa who spoke up on behalf of his own ethnic group, the Ogoni people. He was criticising the government for the environmental damage being inflicted on the land inhabited by the Ogonis. He also challenged Shell for its environmental despoliation and human rights violations (Watts 2004:279). The conditions that triggered the protest are all around the people that inhabit this area. *The soil has lost its fertility and the waters its fecundity, destroying the basis for farming and fishing* (Bassey 2001). A group of researchers travelling the area discovered through personal interviews that most of the people in the areas were experiencing several phobic disorders, by reason of the persistent feeling of threat of starvation and negligence from oil companies and their collaborators (Akpofure et al.).

One way that the locals in the region protest, is that they try to sabotage the oil production. *Shell claims that about 80 percent of all oil spills from their facilities caused by sabotage* (ERA 2005:14) Naturally, this is something the oil companies and the government taking in the profit wish to stop. There are also secessionist movements in the region that wants to make the Delta an independent nation. This is an intricate conflict played out by several different actors on several different arenas. Human rights watch points to one aspect of the conflict taking place in the delta region, whereas the strife is labelled an ethnic conflict over the “ownership” of the

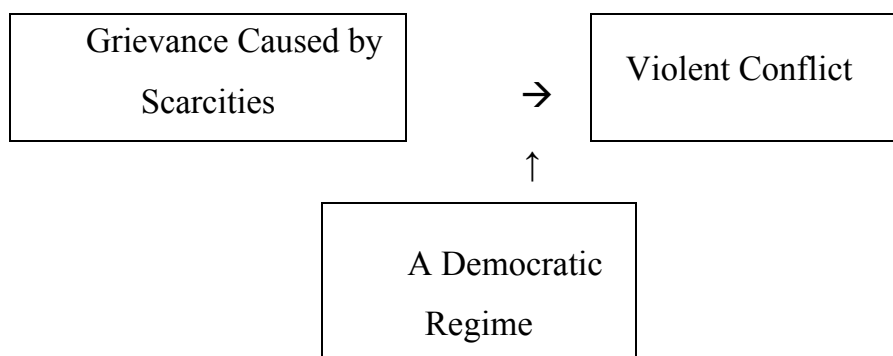
town of Warri. The rebels want new wards and local government with better ethnic representation (HRW 2003).

The Nigerian government, both at state and federal level, has failed to intervene in ways that fully address the multi-laired dimensions of the problems in the delta state, focusing only on security force interventions and pro forma meetings with elite groups that lead to no concrete outcomes. *There is a tendency for politicians to lay the entire blame for the violence on criminals carrying out illegal oil bunkering, without acknowledging that many of those running illegal bunkering operations are allegedly within government* (HRW 2003:26).

1.4 Formulation of Research Question

The theme of the thesis is conflict and conflict generating factors and the governing of resources. The underlying assumption is that there is a strong relationship among population growth, poverty, environmental degradation, social violence, political instability and authoritarian forms of government (Pirages 1998:371), and from the theories on the relationship between scarcities and conflict and I have derived the model below. The democratic regime as a contextual variable is based on Hauge and Ellingsen's empirical results, where they find the most explanatory power as causes of conflict in the variables: regime type, low economic development and income inequality (1998), and the statement that much of the literature on environmental conflict ignores political variables (Gleditsch 1998).

Model of the possible causal links:



To test the model of causal links, I have chosen Nigeria as my case and the analysis will be conducted over the fighting in the Delta region. There are many sources of conflict in the Niger Delta as elsewhere, and taking in the large perspective, the fighting in the Niger Delta looks like it's a fight over the "ultimate" resource and income generating product, namely oil and the wealth following it. In my research the oil production will play a part in causal linkages by being one of the causes behind the land degradation and as a huge generator of income. I will focus on the consequences of the oil production on nature as cause for the conflict in light of theories of environmental security.

Based on the theoretical background, the analysis will be conducted over the question of what degree did conflict arise from environmental scarcities in the case of the Niger Delta and what is the effect of the contextual factors. I will try to obtain a broader perspective of the situation and to see if the effect of degradation of livelihood can be made smaller. The specific questions I wish to ask, is:

What effect does an African democracy have on conflict arising from environmental degradation? More specifically, I want to investigate if the existence of a democratic regime in Nigeria has any positive effect on the conflict in the Niger Delta arising from the scarcities of resources in the region.

It might seem pointless to look at what can be labelled a contextual variables effect on what is already determined to be a complex and obscure connection, but I still think it can be fruitful to investigate. The absence of conflict, the preservation of the environment and a functioning state and administrative system are essentially good and virtually incontestable outcomes, and therefore knowledge in this field is needed. By including the contextual variable of an African democracy, I aim to get a wider understanding of an area of conflict theory that has already been tested and investigated extensively by other researchers.

1.5 Methodological Framework

The analysis will start of with an eclectic use of theories concerning the connection between scarcities and violent conflict and the effect of regime-type on this link. Then the model of causality will be used to investigate the conflict in the Niger delta

and the Nigerian form of democracy's effect on the part of the conflict possibly resulting from the grievances that the environmental degradation is producing in order to see how this newly turned civilian rule is governing the resources. The problem formulation of my thesis opens for a case study of the Niger Delta conflict and how the Nigerian government plays a part. For this investigation it would make the most sense to use qualitative methodology. Given the theoretical background I won't conduct an explorative case study but rather use research that would either confirm or reject the theoretical model that is being put forward, to the degree that this is doable using this kind of qualitative approach. Sven S. Andersen categorizes four different types of case-studies (1997:61), and this thesis will fit the theory interpreting type of study.

With any kind of research it is important to have a high level of validity and reliability. In doing research one move both on the theoretical field and the empirical field, and the relationship between the two determines the validity of the results. *How well an operational definition compares with the corresponding theoretical definition is one of the most important questions to ask in scientific research* (Hellevik 2002:51-53). *In a case study that is interpreting theory it is a problem if the terms used are too general so the empirical variation doesn't become clear* (Andersen 1997:70). This is something I will try to avoid in order to keep a high level of validity. For my study the model of causal paths need to be as close to the theoretical outline as possible in order to increase its validity. Reliability has to do with the consistency and accuracy of the data in the research. *Getting the reliability as high as possible is reliant on a clear and precise operational definition* (Hellevik 2002:52). In my analysis, my operational definitions like 'environmental scarcity' follow the outline of my sources of theory.

The sources that I will be using will be both primary and secondary in the form of official rapports, other scientific research, newspapers and statements. The method of getting a lot and the most accurate information out of secondary sources is to triangulate and to get as many sources that say the same as possible. Also, the problem of lower credibility with secondary sources will be dealt with by assessing the credibil-

ity of the source and making the distinction between statistics and personal statements.

2. Theory

2.1 Introduction

My thesis is to a large degree driven by theory and theory makes the starting point of the analysis. Given the complex situation in the Niger Delta, the use of traditional theories of security does not seem to have any major relevance. This is a conflict that has been labelled as a resource conflict and a conflict over territory, and there are also disputes over political representation. The frustration is directed in different directions with many different interests and actors. The state is not the main actor and I will try to show that this conflict is both intrastate and in the developing world, consistent with the changing nature of warfare.

The purpose of this chapter of theoretical perspectives on the different connections between environmental degradation and violent conflict, and also between an African democracy and this specific path to conflict, is to build up the argumentation to be able to use the model of causal links. The underlying principles behind the model will be thoroughly laid out and explained, in order for the model to be used in the empirical testing of the situation in the Niger Delta. I will theorise the concepts used, and discuss the causal paths. With the starting point in the model of causal links I will first line up the causal links between environmental scarcity and violence, mostly as presented by Thomas Homer-Dixon and his associates. Then I will introduce the concept of African democracy as an intermediate variable in the causal links towards conflict outlined in the first part of this chapter. Critical voices of the causes and effects will also be looked into.

2.2 The Emerging of the Theories of Environmental Security

Paul F. Diehl writes that the diminution of some traditional security issues at the end of the Cold War and the emergence of environmental concerns on the international agenda have merged to create a topic of scholarly study called ‘environmental security’ (1998: 275). In the 1980s, before and as the cold war was ending, there was a shift in the way that conflicts were viewed. The focus on the ideological standoff be-

tween the superpowers was abandoned as it was no longer relevant. This happened at a time when researchers became increasingly aware of the challenges ahead in the wake of widespread pollution and population growth, and terms like ‘sustainable development’ was introduced². In a way it became obvious that the level of economic growth that the world was at could not be kept forever without the environment that our resources were drawn from would suffer and the livelihood of future generations would be destroyed. But also there were also security warnings raised. Nils Petter Gleditsch writes that since the emergence of environmental issues on the international political agenda in the early 1970s, there has been an increasing concern that environmental disruption is likely to increase the number of disputes from competition over scarce resources (1998:382).

2.2.1 The Abandonment of Traditional Theory of International Security

Another point to make is the changing nature of warfare in the post World War Two era. Kahl observes that the vast majority of wars have been located in the developing world and most of the wars have been intrastate in nature during this time (1998:80-81). In this alternative theory of security, the violence experienced can be labelled environmental conflict. And when theory of environmental security is compared to traditional theories of international security, there are a lot of obvious differences. I will start off my theoretical outline with the same assumption as Seyom Brown in the book *World Security* (1998), that realism does not have sufficient explanation power in the changing dimensions of security and that it is not satisfactory as an analytical tool. Also Homer-Dixon states that the modern realist perspective that is often used to understand security problems is largely inadequate for identifying and explaining the links between environmental change and conflict (1991:84). In the realist school of thought, the state is the main actor and the focal point of the research and the states are rational maximizers of power in a system that is anarchic. In this view, what the decision-makers choose to do is mainly a function of the structure of power relations in this system. *It sees the world as countries and not as eco-systems. Realism thus*

² Gro Harlem Bruntland (1987)

encourages scholars to deemphasize transboundary environmental problems, because such problems cannot be linked to a particular country, and do not have any easily conceptualized impact on the structure of economic and military power relations between states (ibid.)

Another dimension worth considering is that like the changing nature of international security, African conditions have been labelled unsuitable for the realist approach. As mentioned, the central object of analysis in the realist school of thought is the nation state. Dokken and Bøås uphold that it is impossible to look at the state in Africa as a unitary and rational actor. There is a wide spectrum of governmental and non-governmental actors with different interests on the arena (2002:37). It is difficult to determine whose national interest is behind the different actions. The state in Africa can not be seen in the same light as the classic ideal westphalian state. Chabal and Daloz talks about this different state in Africa (1999) and argue that the state there was never properly institutionalized because it was never properly emancipated from society because of historical factors and cultural considerations.

The narrowly focused “realist” lens fails to illuminate many of the momentous developments occurring within, above, and across the jurisdiction of the nation states that are creating dangerous incongruities in world politics and security (Brown 1998:1). In a way, realism has been determined not suitable for African conditions by scholars, much so on the same grounds as for environmental security, since in both analyzing conflict in an African context and from an environmental point of view, the inadequacy of realism is visible through its focus on nation-states in an anarchic world.

2.2.2 Critics of the Theory of Environmental Security

The study of environmental security is still largely an emerging field, without the strong theoretical and empirical bases on which to cumulate and integrate knowledge. On the research done in this field, the most comprehensive and empirically tested studies are done by a team of researchers led by Thomas Homer-Dixon at the Peace and conflicts Studies Program at the University of Toronto. They refer to themselves as the Toronto group. They have however been criticized from different scholars,

some arguing that this should not have the same relevance for the thinking of international security as more traditional military views should have. Marc A. Levy accuses the line of thinking for being too abstract and that the role scarcities play in causing conflicts is too obscure and of little importance (1995). Daniel Deudney (1990) argues that the environment and human conflict have little in common. He believes that using nationalism as a way to raise environmental awareness can ultimately hurt global efforts to stop environmental damage. However, both of these views must be said to be angled from a U.S. national security perspective with the likelihood of conflict erupting in the first world being the main concern.

Gleditsch (1998) points to a number of methodological problems in the scholarship on the relationship between resources, the environment and armed conflict the way that it is done by Homer-Dixon and his associates. The problem of bringing nature into social theory is that political, economic and cultural variables are ignored, he argues. These are then rebutted by the Toronto group when they point to that the societies that are most vulnerable to environmentally induced violence are those simultaneously experiencing severe environmental scarcity and various forms of institutional failure (Schwartz et al 2000:81), and by saying that they only claim that the effect on conflict is indirect (ibid:82).

2.3 Theory of Environmental Security and Conflict

Despite the critics, a lot has been done to investigate the links between the degradation of people's habitat and the probability of conflict, both quantitative and through different case studies. The extensive work and different projects of Homer-Dixon and the Toronto group will be the basis of the theoretical outline of the links between environmental change and conflict³. Looking at the model of causal links I presented in the previous chapter, the first part of this theoretical outline corresponds to the arrow between grievances caused by scarcities and violent conflict. There are more complex links and more steps in the causal-path analysis of the links between environmental

³ The Key findings of The Project on Environment, Population and Security and of the Project on Environmental Scarcities, State Capacity, and Civil Violence are some of the findings of this group research.

change and conflict than indicated in my simplified model that needs to be illuminated to understand the background. I will be presenting the causes of environmental degradation and the social effects of scarcities and how the social effects can lead to conflict.

The first key finding of the Toronto group's Project on Environment, Population and Security is that *under certain circumstances, scarcities of renewable resources such as cropland, fresh water, and forests produce civil violence and instability. However, the role of this "environmental scarcity" is often obscure. Environmental scarcity acts mainly by generating intermediate social effects, such as poverty and migrations, that analysts often interpret as conflict's immediate causes* (1994-96). In other words, they claim to have found and proven the link between environmental degradation of different sorts, and conflict. In this postulation, there are two causal steps in explaining how conflict can arise from scarcities of renewable resources. Firstly, what causes the scarcities, and second, what effects the scarcities have on people.

2.3.1 Environmental Scarcities

Clarification of this somewhat indistinct concept starts of with Homer-Dixon's definition that environmental scarcity is scarcity of renewable resources, such as cropland, forests, river water and fish stocks (1999:8). Renewable resources are natural resources, such as freshwater, clean air, cropland, forests, and fisheries, that *theoretically* regenerate themselves indefinitely through normal ecological processes. Kahl writes that renewable resource scarcity emerges when the stock or flow of a resource is quantitatively depleted or qualitatively degraded at a rate faster than the rate of regeneration (1998:85).

When looking the cause and effects of environmental scarcity, it makes sense to start with the creation, namely what causes this scarcity of renewable resources – the different forms of environmental change. Scarcity has three main factions of causes, depletion and degradation of the environment, population growth and unequal distribution of the resource. The different forms of scarcity can be illustrated by using a simple "pie" metaphor, where the pie is the renewable resource. The reduction in the

quantity or quality of a resource shrinks the pie, population growth and increased demand for these resources boosts demand for the pie and unequal distribution can cause some groups to get portions of the pie that are too small to sustain their wellbeing. Homer-Dixon distinguishes between three different types of scarcities that lead to grievances among the population and then again possibly to war. But it is difficult to map out the exact cause and effect of each type of scarcity because they are seldom straightforward and clear-cut, but rather part of a complex system of links with simultaneous, vague and multidirectional effects - It is after all nature.

2.3.1.1 Supply Induced Scarcity of Resources

Supply-induced scarcity is caused by the degradation and depletion of an environmental resource, for example the erosion of cropland (Percival & Homer-Dixon 1998:280), or in a way the impacts of human activity on the earth's renewable resources. Without being a biologist or an expert on pollution, one can detect changes in the natural environment with the naked eye. In some way or another, the broad term 'environmental problem' can be observed throughout the world in the form of pollution and human imprint on the surroundings. For example, one can see the effects of the changes in the form of smog infested cities, cut down forests and contaminated water. Homer-Dixon identifies seven major environmental problems, greenhouse warming, stratospheric ozone depletion, acid deposition, deforestation, degradation of agricultural land, overuse and pollution of water supplies and depletion of fish stocks (1991:88-89). These are often inter-correlated and may appear simultaneously. It's hard to contest in this day and age that this observable degradation is not human-induced, and in some cases it's safe to say from what we know that the changes in the environment are large-scale and in some cases irreversible. One prediction is that of the major environmental challenges facing humankind, degradation and depletion of agricultural land, forests, water, and fish will contribute more to social turmoil in coming decades than will climate change or ozone depletion (Homer-Dixon 1991:7), and these changes in turn are the ones that directly affect the renewable resources. In a World Bank report ranking the environmental problems in the Niger Delta, the ag-

ricultural land degradation, fisheries depletion, deforestation and loss of biodiversity get high priority (1995:viii).

2.3.1.2 Demand Induced Scarcity

Demand induced scarcity results from population growth within a region or increased per capita consumption of a resource, either of which heightens the demand of the resource (Percival & Homer-Dixon 1998:280). In a society where there is a shortage of resources, an increase of the population involves an increase in the number of people competing for the resources and can be a cause of further distress of living conditions. *Population size and growth are key variables producing the syndrome of environmental scarcity. While sometimes population growth does not damage the environment, often this growth - in combination with prevailing social structures, technologies and consumption patterns - makes environmental degradation worse* (Homer-Dixon 1991:102). *Demand-induced scarcities arise only with resources that are rivalrous. A good or a resource is rivalrous when its use by one economic actor reduces its availability for others. Examples are fisheries, cropland, forests, and water* (Homer-Dixon 1999:48). So when the number of people increases, the level of competition over the necessary resources gets higher⁴. As for the Niger Delta, the World Bank concludes that the linkages between poverty and population growth leading to environmental degradation are evident in both rural and urban parts (1995:6).

2.3.1.3 Structural Scarcity

Structural scarcity arises from an unequal social distribution of a resource that concentrates in the hands of relatively few people while the remaining population suffers from serious shortages (Percival & Homer-Dixon 1998:280). Looking at the pie, this happens when the people or the system in charge does not make the slices fair and equal. *This type of scarcities arises primarily with resources that are excludable, which means that property rights or other institutions can be used to prevent access*

⁴ Kahl calls the combination of the first two types of scarcity and their causes environmental and demographic pressure (1998).

to the resource by some actors. Cropland is usually excludable, and structural scarcities of cropland are readily apparent in many societies (Homer-Dixon 1999:48). In a country ruled by elites and prevalent patron-client relationships, it's not hard to imagine that what little there is mostly will benefit the chosen few. The distribution of the scarce resources can present a substantial problem for the authorities. *Each society has rules and laws that define the limits and nature of ownership of things such as farmland* (Homer-Dixon 1999:52).

2.3.2 Social Effects

Research has identified five main social effects that can, either singly or in combination, substantially increase the probability of violence in developing countries. These are:

- Constrained agricultural productivity
- Constrained economic productivity
- Migration of the affected people
- Greater segmentation of society, usually along existing ethnic cleavages
- Disruption of institutions, especially the state (Homer-Dixon 1998:80).

It is important to note that these negative social effects also occur independently from environmental scarcities in different societies. They are in their own way interlinked and are also the negative consequence of other forces. But researchers have found that environmental scarcities within a society do attribute to these various negative effects, even if the causal chain as a whole is mutually reinforcing and have other external causes. Homer-Dixon emphasizes that environmental scarcity is not a sufficient cause for any of the social effects. Scarcity always interacts with other factors and causes to produce these social effects. Also, these effects are often causally interlinked, sometimes with feedback relationships (1999:80).

The different effects that environmental and demographic pressure and unequal distribution have on society are prevalent all over the third world. Mostly it is observable in the form of poverty, low productivity and migration. The negative effects of constrained agricultural and economic productivity have the consequences that the supply of food and the ability to purchase the things needed to sustain a life are oblit-

erated, and the people living under these conditions are pushed further into poverty and hunger. Homer-Dixon predicts that decreased agricultural production is the potentially most worrisome consequence of environmental change (1991:91) and that the potentially most important negative social effect is environmental scarcity's effect on economic development (1999:88).

The demand-induced scarcity in the wake of population growth has very distinct effect in addition to interaction with the others, such as population displacement, migration and urbanization. *Over 90 percent of today's population growth is occurring in the developing world* (Homer-Dixon 1999:56). *In Africa, 44 percent of the population is under fifteen years of age. Underemployed, urbanized young men are a particularly volatile group that can be easily mobilized for radical political action* (ibid:58).

Structural scarcity usually happens along existing segmentations in the society. Elites secure or tighten their grip on a resource to profit and the scarcity is intensified for weaker groups. Homer-Dixon says that scarcity sharpens distinctions between winners and losers – between groups that profit from scarcity and those that are hurt (1999:96). *The weakening of the state shifts the social balance of power in favour of challenger groups and increases opportunities of violent collective action by these groups against the state* (Toronto group 1993-97). *Theoretically, an important intervening variable between environmental scarcity and civil conflict is inequality* (Midlarsky 1998:341). So in both demand induced scarcity and structural scarcity we see the need for better distribution.

The different social effects constrained agricultural output, economic decline, population displacement and segmentation of society have in turn a negative effect on the fifth social effect of environmental scarcities, namely the debilitation of political and social institutions. The social effects interact and reinforce each other in a similar manner as the different environmental scarcities do. *As human population grows and environmental damage progresses, policy makers will have less and less capacity to intervene to keep this damage from producing serious social disruption, including conflict* (Homer-Dixon 1991:79). When the agricultural output drops in rural communities, this can weaken the society by causing malnutrition and disease, and pro-

vides people an incentive to leave. *Economic decline may corrode confidence in the national purpose, weaken the tax base, and undermine financial, legal, and political institutions; and mass migrations of people into a region may disrupt labour markets, shift class relations, and upset the traditional balance of economic and political authority between ethnic groups* (Homer-Dixon 1991:98).

From what is outlined here, these intermediate social effects of environmental scarcity – including constrained economic productivity, population movements, social segmentation, and weakening of states – can in turn cause ethnic conflicts, insurgencies, and coups d'état. Homer-Dixon predicts that the social effect that is especially relevant to the connection between environmental change and acute conflict is the disruption of institutions and of legitimized, accepted authoritative social relations (1991:98).

2.3.3 Conflict

Defining war or violent conflict is done in several different ways, by describing groups opposing or simply counting the number of casualties. In a sense it is easy to identify a difference of opinion at the group- or international level, and the real difficulty is to identify the cause of conflict. Homer-Dixon defines civil strife as a function of both the level of grievance motivating challenger groups and the opportunities available to these groups to act on their grievances (1994:25). Some projections have been made in order to see if environmental scarcities will increase the likelihood of interstate war, but my focus in this outline will be on internal conflict. Since also the majority of wars since World War Two have been intrastate in nature, this focus makes sense. Homer-Dixon predicts the violence to usually be sub-national, persistent and diffuse (1994:6). Concerning the situation in the Niger Delta, the World Bank observes that conflicts between stakeholders over resource rights and uses in the region are endemic (1995:81).

2.3.3.1 Grievance

In general conflict theory it is the feeling of increased hardship that gives the incentives to rebel. In theories of environmental security and theories of environmental conflict, this hardship is the negative effect of the scarcities outlined above. *In order*

for these social effects to cause heightened grievance, people must perceive a relative decrease in their standard of living compared with other groups or compared with their aspirations being addressed under the status quo (Gurr 1993:126). Another term for this is relative deprivation. *Unless the grievances are addressed, the legitimacy of the government will decrease, society will once again become segmented, and opportunities for violent collective action will increase correspondingly* (Percival & Homer-Dixon 1998:282).

As mentioned, the structural inequalities mostly happen along existing lines in the society whether they might be economic, ethnic, religious or a combination, and the social effects of the environmental and demographic stress in this sense increases forces of segmentation already existing. *Segmentation breaks down social networks, weakens community norms and erodes trust* (Percival and Homer-Dixon 1998:290). In turn the grievances are then felt at a group level, where individuals that identifies with each other share the same hardship. It is the groups which mobilize most effectively in response to scarcity-induced decline that are likely to be the most powerful and thus most likely to initiate collective action (Gurr 1985:62).

As we see, the motivation for revolting in situations of environmental scarcity is the grievance felt by the affected people. Elizabeth Gilmore, Nils Petter Gleditsch, Päivi Lujala and Jan Ketil Rød (2005) bring in an opportunity factor in the grievance and revolting scenario. The rebel groups need some sort of prospect in order to go act on their frustrations. They hypothesise that rebellion is more likely when there is both grievance and opportunity. In addition to incentive, one needs opportunity. In other words, to act out their grievance means that they are in the possession of economic funds and the appropriate violent means, such as weapons and the manpower to use them. This is in accordance with Kahl's statement that the deprivation hypothesis⁵ highly overpredicts incidents of civil strife (1998:83).

⁵ Also known as James C. Davies' (1962) J-curve.

2.3.3.2 *Types of Conflict*

When it comes to the way that grievance is expressed, there are three main theoretical perspectives on conflict; frustration-aggression theories, group identity theories and structural theories. These theories are drawn upon in forming the theory of environmental security. Frustration-aggression theories, suggesting that individuals become aggressive by something in their surroundings and by having a sense of being worse off than others, the “we-ness” produced by group-identity conflict and the physical and social factors in structural theories can be linked to the onset of environmental conflict. There are three principal types of conflict caused by environmental degradation, simple scarcity conflict, group-identity conflicts and relative deprivation conflicts (Homer-Dixon 1991:104-111). These types of conflict are hypothesised ideal forms of aggression and will not be found in its pure form in the real world.

Simple scarcity conflicts are explained by structural theories and it is the type of conflict that could be expected when actors rationally calculate their interest in a zero-sum or negative-sum situation that could arise from resource scarcity (Homer-Dixon 1991:106). Group-identity conflicts follow logically from group-identity theories and where in certain circumstances groups will emphasize their own group while attacking outsiders. *Such conflicts are likely to arise from the large scale movements of population brought about by environmental change* (ibid:108). Relative deprivation conflicts builds from the sense of dispossession that people feel when their livelihood is eroded by environmental degradation and the society in general produces less wealth. The sense of discontent and grievance might be translated into aggression as explained earlier.

2.3.4 **Adaptation**

A key finding of the Toronto group is that *societies can adapt to environmental scarcity either by using their indigenous environmental resources more efficiently or by decoupling from their dependence on these resources. In either case, the capacity to adapt depends upon the supply of social and technical “ingenuity” available in the society* (1994-96). It is when this adaptation process is unsuccessful that all the factors involved in turn can cause violent conflict.

If the adaptation fails, the way that conflict can arise from environmental scarcity is by the negative social effects and the grievance felt by the people experiencing them. Kahl upholds that demographic and environmental stress can increase the level of grievances within societies, which in turn can provide ruling elites with incentives and opportunities to exploit these grievances to serve their own purposes (1998:86). The writings on this particular matter all suggest that it is the ones with the most resources that most successfully adapt to situations with resource scarcity. The so-called elites are in a better position to manipulate their surroundings to accommodate themselves in a way that makes the gap in society even greater.

2.3.5 The Vulnerability of Developing Countries

When it comes to developing states, it is rarely questioned that they live under conditions of much poorer quality. For example, 60 to 70 percent of the world's poor people live in rural areas, and most depend on agriculture for their main income. Over 40 percent of people on the planet – some 2.4 billion – use fuelwood, charcoal, straw or cow dung as their main source of energy. Over 1.2 billion people lack access to clean drinking water (Homer-Dixon 1999:13).

Hauge and Ellingsen point to the fact that environmental degradation is found primarily in developing countries, in the context of disastrous national economies: low Gross National Product (GNP) per capita, high external debt, strong dependency on export of primary commodities, low levels of industrialization, and poorly developed democratic institutions (1998:303). Gurr writes that in the contemporary third world, hardship is a condition of life for large segments of the population living near the margin of subsistence (1985:56). In an already poor country it might seem difficult to pinpoint the exact cause of the problems that is witnessed, and thereof difficult to evaluate to what degree environmental scarcities are the cause of the negative social effects. In some sense it might even be difficult to determine in which direction the arrow of causality points. If this connection is blurry, the causal chain from environmental degradation to conflict is also a blurry one.

Also in a poor community, people might not have the funds to look after their resources in the best way to ensure that it is properly managed. The way that Ted Gurr

describes it, is that those poor countries which have not yet evolved strong bureaucratic-authoritarian states have less capacity and less resources to manage crises than states of the developed world. This means that they are even less likely to devise and implement appropriate policies than the legitimate governments of rich nations, and therefore are more susceptible to revolutionary upheavals (1985:71).

In the way that many third world countries are managed, there are powerful elites that have the rights to land, the means of production and the positions to make decisions. The neo-patrimonial system allows for patron-client relationships where decisions are made on a personal basis. Corruption flourish in these conditions and the elites have very much the intent to stay in power and in their position of privilege.

2.4 Democracy in Africa and Environmental Conflict

This second part of the theoretical outline is done on the background of the intermediate variable of an African democracy and the arrow pointing from this variable on to the connection between scarcities and violent conflict corresponds to the outline I am now presenting. Homer-Dixon sees the disruption of legitimized institutions as a social effect, and when the state is at the same time met with a new set of challenges, he claims that as the human population grows and environmental damage progresses, policymakers will have less and less capacity to intervene to keep this damage from producing serious disruption including conflict (1991:79). He is in a way saying that the state is weakened by the challenges they face and at the same time the conditions, the scarcity and the social effect demand tougher actions by the authorities. Kahl, in addition claims that demographic and environmental stress need not dramatically weaken states for violence to erupt, violent conflict can arise from purposive actions of state elites themselves.

To introduce the intermediate variable in my model I point to the scholars that question the Toronto group's line of thinking. Gleditsch outlines nine problems in the literature on environment, population and conflict (1998), among them the problem that important variables are neglected, notably political and economic factors which have a strong influence on conflict and mediate the influence of resource and environmental factors. In the literature produced by the Toronto group, the erosion of de-

mocratic structures is a social effect and a link in the chain of causality from environmental degradation to violent conflict, and not an independent factor in generating the end result. Hauge and Ellingsen's research point to this by considering other direct causes of conflict. They conduct one of the first large-*N*, multivariate studies of environmental degradation and civil conflict where they are able not only to confirm some of Homer-Dixon's hypothesis across a variety of countries, but perhaps more importantly assess the relative importance of environmental factors, as opposed to other variables, in civil conflict (Diehl 1998:276). They find that economic development and regime type have a higher explanatory power than environmental scarcity does. In seeing other conflict generating factors in the same light as environmental degradation, the need for a broader perspective seems necessary. My angle of approach here is to look at the effects of the regime type at hand.

2.4.1 State Capacity

The relationship between environmental degradation and democracy is a reversal one. At the same time as the competition over resources undermines the democracy, the democracy is thought to slow down the escalation towards violent uprising. Percival and Homer-Dixon put it like this: *Environmental scarcity increases society's demand on the state while decreasing its ability to meet those needs* (1998:281). He hypothesizes that the spread of liberal democracy in the developing world might reduce the chance that environmental stress and its social effects will cause interstate conflict (1991:115) but the story might be different with internal conflict.

The positive effect of a democratic regime on the environment would be seen in minimizing soil erosion, fouling of fresh water supplies and other types of scarcities by preservation being put on the political agenda. Midlarsky however, asks the question, what if the democratic process does not necessarily operate in the best interest of the environment? (1998:342). He reaches the somewhat surprising conclusion concerning the limitations of democracy as an instrument of environmental protection. Hauge and Ellingsen contributes this result to the sample size and the measures of democracy used, and find that it does seem to be *some* kind of positive linkage between democracy and environmental preservation (1998:304). The necessity to pre-

serve resources is part of the demands on the state at the onset of environmental scarcity and the ability to make decisions and implementations in order for the environmental degradation to turn around and start preservation depends on the state's capacity.

Project researchers and advisors, totalling about 50 experts in five countries, developed a detailed set of conceptual tools for thinking about environmental scarcity and state capacity that I will use to analyse the capacity of the Nigerian state.

Indicators of State Capacity	
<i>Indicators of the State's (or its Components') Intrinsic Characteristics:</i>	
Human Capital	The technical and managerial skill level of individuals within the state and its component parts.
Instrumental Rationality	The ability of state's components to gather and evaluate information relevant to their interests and to make reasoned decisions maximizing their utility. (Note that "utility" may be locally defined; i.e., it may reflect the narrow interests of the component and not the broader interests of the state or society.)
Coherence	The degree to which the state's components agree and act on shared ideological bases, objectives, and methods; also, the ability of these components to communicate and constructively debate ideas, information, and policies among themselves.
Resilience	The state's capacity to absorb sudden shocks, to adapt to longer-term changes in socio-economic conditions, and to sustainably resolve societal disputes without catastrophic breakdown. The opposite of "brittleness."
<i>Indicators of the Relations between the State (or its Components) and Society:</i>	
Autonomy	The extent to which the state can act independently of external forces, both domestic and international, and coopt those that would alter or constrain its actions.
Fiscal Resources	The financial capacity of the state or of a given component of the state. This capacity is a function of both current and reasonably feasible revenue streams as well as demands on that revenue.
Reach and Responsiveness	The degree to which the state is successful in extending its ideology, socio-political structures, and administrative apparatus throughout society (both geographically, and into the socio-economic structures of civil society); the responsiveness of these structures and apparatus to the local needs of the society.
Legitimacy	The strength of the state's moral authority -- the extent to which the populace obeys its commands out of a sense of allegiance and duty, rather than as a result of coercion or economic initiative.

(Toronto Group 1993-97)

The Toronto group calls state capacity a function of variables such as the state's fiscal

resources, political autonomy, legitimacy, internal coherence and responsiveness. One of their findings is that environmental scarcities increase financial and political demands on the state (1993-97).

2.4.2 Public Policy/Redistribution

According to the Stockholm Declaration, *States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other states or areas beyond the limits of national jurisdiction*⁶ (UNEP 1977). So even internationally there are guidelines to a country's responsibility to preserve nature while at the same time utilizing its natural resources. When it comes to what kind of responsiveness one could expect from the state in a country faced with severe environmental scarcity, it makes sense to focus on a basic function of a functioning democracy, namely redistribution. Many would say that it is the responsibility of the government to make sure that public goods are evenly distributed through fair policies when meeting the challenges of demographic and environmental stress. Ted Gurr says that there are patterns of public policy which can distribute the cost of economic crisis more widely; regulative and redistributive policies in particular minimize the advantages of economically powerful groups and provide a safety-net for the poor (1985:58). Midlarsky states that democracy clearly is required for the equitable distribution of economic largesse, or equitable redistribution in the absence of economic growth (1998:342). Failure in this department could be observed in the form of structural scarcities.

Another direction of the arrow of causality, *stable democracies cannot long persist under conditions of extreme inequality* (Midlarsky 1998:345). One could say that fair redistribution of the nation's wealth and resources is a key element in what defines a democracy. *One of the most important policy failures of the Niger Delta is the lack of well-defined property rights and their enforcement* (World Bank 1995:xv)

⁶ Principle 21, 1977 Stockholm Declaration, United Nations Environment Program

This becomes clear looking at the discontent about the way the oil wealth is distributed. Hauge and Ellingsen say that land distribution, as well as the degradation of land, forest and water, is linked not only to demographic patterns, but also to economic and political factors (1998:303).

So obviously there is a lot that can be done in governing the scarcities to reduce the chance of violent conflict. Politics do play a part in shaping a society's response to social stress. With the onset of migration to urban areas, the government is put under pressure to provide food, shelter, energy, transport and jobs. Also, social segmentation as an effect of different types of scarcities debilitates the civil society and creates a lack of trust. *The loss of trust, of information flows from society to the state, and of private implementation of state policies reduces the reach and responsiveness of the state at the local level. The state's failure to meet local needs then depresses its legitimacy* (Toronto Group 1993-93).

2.4.3 State Exploitation Hypotesis

To stay in power, all regimes, even the most authoritarian ones, require some base of social support. In a country experiencing severe demographic and environmental pressures, Kahl claims, that state elites are likely to fear an erosion of this support if they are unable to meet societal demands. *Threats to a regime thus create incentives for state elites to search for strategies that will stabilize their base, mobilize new supporters, and co-opt or crush political opponents* (1998:87-88). This perspective focuses on the roles of the elites in a country, and seen in context with structural scarcity, this pre-face to conflict has a disruptive effect on the society when it reinforces already skewed distribution. Demographic and environmental stress according to Kahl, provides elites with golden opportunities to perpetuate their rule (1998:88). Institutional inclusivity is the degree of which social groups are empowered to take part in the rule or the decision-making (ibid:90).

The Toronto group finds that resource scarcities affect the state via their effect on elites. *As they become more powerful, these groups are increasingly able to ignore state dictates, shirk taxes on their greater wealth, and penetrate the state to make it do their bidding. In particular, they often lobby to change the property rights and*

other laws governing the use of scarce resources such as water, land, and forests (Toronto Group 1993-97). The predatory behaviour of the elites then further invokes violent uprising among less powerful groups and undermines state legitimacy at the same time. Like in the writings of Ted Gurr, the underlying rationale is that economically advantaged groups are better able to use market forces and political influence to maintain their positions (1985:58).

2.4.4 African Democracy

The major difficulty in theorizing about democracy and the environment probably arises from the view of democracy as undifferentiated (Midlarsky 1998:346). This statement also points to the problem of studying third world countries in the same context as countries of the first world, assuming that the denominators are the same and that a comparison can be made. Dokken and Bøås (2002) writes that most scholars on Africa agree that the African state is a type of state that exists in a grey area between a legal bureaucratic-rational framework and a person based framework, and that there is an official division between the job and the person and also between politics and economy. In most cases however, this division exists only on paper. In this type of state decisions are likely to be made on a personal basis rather than for the general public.

The personal relationships open for corruption, patron-client relationships and rent-seeking actors. The African state hence does not fit the ideal westphalian model of the state, and needs to be looked at in a different light. Neo-patrimonialism, which Medard calls a kind of hybrid of patrimonialism and bureaucracy (1996), is one way of describing the African condition. Chabal and Daloz describe the state as being illusory and substantial at the same time and this makes the state both strong and powerless (1999:9).

2.5 African Adaptation

As mentioned the likelihood of severe environmental degradation is larger in the third world, but also the capacity of developing countries to respond to environmental and other challenges is smaller than in rich first world countries. *Developing states do by*

definition have less financial, material, and intellectual resources. These countries have less 'slack', so resource crisis will push more people more quickly to and below the subsistence margin (Gurr 1985:71). He goes on to say that the bureaucracies in these states have not yet developed in a way that is able and have the resources to manage crisis. Thus they are even less likely to devise and implement appropriate policies than the legitimate governments of rich nations, and therefore are more susceptible to revolutionary upheavals (1985:71).

Looking at the state capacity there is a lot to be said about what is required from the government of a country facing the different environmental changes. Environmental scarcity increases the financial and political demands on governments from the lowered production and constraining rural development. *Furthermore, the resource loss can reduce the income of elites directly dependent on resource extraction; these elites usually turn to the state for compensation. Scarcity also expands marginal groups that need help from government by producing rural poverty and by displacing people in cities where they demand food, shelter, transport, energy, and employment (Homer-Dixon 1994:25).*

Optimists, or neoclassical economists and so-called distributionists will say that the more heads – the more ideas on how to cope with the scarcity and that the actual scarcity itself or new developments in national and international economies will stimulate a sufficient flow of ingenuity. Reason for optimism for food production and the wellbeing of the third world came in the form of the green revolution, where the use of new technology enabled farmers everywhere to get more from their crops by using fertilizers. Homer-Dixon outlines a more pessimistic view with four factors that are limiting the supply of ingenuity, market failure, social friction, capital availability and constraints on science (1995:597-604) All of which are part of the disadvantage of third world countries in the form of underdeveloped economic institutions, “unstable” societies, less financial and human capital and less access to modern science and knowledge. The capacity of developing countries to effectively respond to the challenges of environmental changes and its consequences is going to depend on the country's capacity to respond to the complex interaction that happens at the onset of degradation in both nature and society. Homer-Dixon states that of particular impor-

tance are the society's prevailing land use practices, land distribution, and market mechanisms within the agricultural sector (1991:99). In other words, the importance of fair redistribution and not necessarily the market forces spurred by self-interest thought to encourage conservation, technological innovation and resource substitution as outlined by for example Julian Simon (1981).

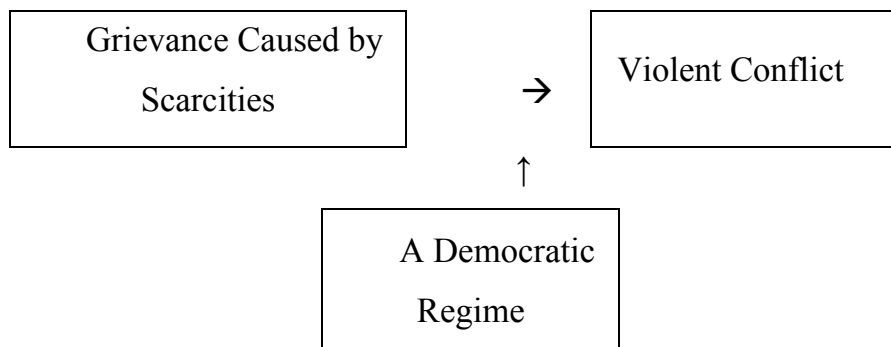
In explaining why some societies do adapt to environmental scarcities while others don't, the Toronto group points to something they call ingenuity, a kind of resourcefulness and creativity at the onset of difficulties. This is different from the neo-classical economic view in that it focuses on the gap between the first- and the third world in not only technical ideas but also ideas about social organization (Homer-Dixon 1995). Homer-Dixon goes on to say that *the state plays the central role in establishing this system of institutions. It must also provide other supports to an efficient market, including a competent civil service, high rates of literacy, a well-functioning infrastructure of transportation, communication, and irrigation systems, and a relatively egalitarian distribution of wealth* (1995:599). One way of putting it is by saying that a lot of third world societies are in a race between a need of ingenuity and the ability to solve problems and their capacity to supply it, and that unlike the optimistic neoclassical economic view, the supply of solutions is not logically following the need for them since the need keeps increasing.

2.6 Summary and Model

Pollution and degradation of the environment, population growth and unequal distribution cause environmental scarcity. Environmental scarcity causes negative social effects, among them poverty, migration, decreased agricultural output and weakening of institutions. These social effects increase the level of grievance, combined with everything else - a conflict might erupt. In a poor society, where grievance and deprivation is already a factor, the effect of further impoverishment and environmental change will most likely hit harder. Scarcity can sharply increase demands on key institutions such as the state and at the same time decrease their capacity to meet those demands. With the existence of a functioning state, the causal pathway to conflict

might be slowed down, but this institution is also under attack from the same factors producing the grievance and the conflict.

The disruption of the state is in the theory of environmental security a social effect, but I want to ask the question what independent effect does a state in the form of an African democracy on the pathway to conflict outlined by scholars in environmental security. Hauge and Ellingsen claim that the literature and research on environmental degradation and domestic armed conflict fails to take into consideration other conflict-generating factors. They and others claim that Homer-Dixon and his colleagues ignore the more direct links between economic and political factors and domestic armed conflict.



In my model outlined above, the intermediate variable of a democratic regime will function as conflict generating factors in addition to environmental scarcities, but with a reverse effect – the new democratic regime in Nigeria as interference to violent conflict caused by environmental scarcities in the Niger Delta. This is in order to get a larger view on the environmental security perspective. With this I propose that the democracy in Africa variable has *an independent effect* on the causal links between environmental scarcity and violence, because although environmental scarcity is a cause of conflict, it is not necessarily also a catalyst (Hauge and Ellingsen 1998:314). I wish to see then if the presence of a democratic regime in an African country has any effect on the wheel of motion towards conflict that the different scarcities might start.

3. Empirical Background

3.1 Introduction

Ike Okonta and Oronto Douglas call it the place *Where Vultures Feast* (2003), and descriptions of the Niger Delta shows it is one of our world's most volatile and degraded areas. One aim of this chapter is to try and outline the adverse conditions that the local population has to live under and to try to describe some of the hardship that they endure because of not only conflict in the region, but the extreme environmental degradation. To bring nature into social science, is at best not an easy task. Some will perhaps say all together not possible, and at the same time raise questions about the link between environmental degradation and conflict. My point of departure in order to write this thesis is that nature and our surroundings provide the livelihood for people, and can therefore not easily be dismissed as having an effect on how people think. This effect is especially visible in rural and less developed parts of the world where the day to day life to a large degree revolves around reaping the earth.

The other thing I want to document in this chapter is the political and economic factors determining the state capacity of Nigeria. I will introduce characteristics of the Niger Delta and the new sub-Saharan democracy that play a part in the complexity around the current conflict and society as a whole. As far as political science goes, this part is the more "mainstream" empirical background. However, political and economic conditions on the sub-Saharan continent differ as we know from the traditional Western view in a lot of ways, so a clear presentation is in order.

3.2 Nigeria

The Federal Republic of Nigeria is located in western Africa, and with its more than 130 million citizens⁷ it is the most populous country in Africa. Nigeria was granted full independence from Britain in 1960, and in 1963 it proclaimed itself as a federal republic. After independence followed a long period of corrupt and brutal military dictators and counter-coups and a civil war from 1967 - 70 over the secessionist terri-

tory of Biafra (CIA 2006). The country was returned to civilian rule in 1999. The new civilian president Olusegun Obasanjo made serious democratic efforts after winning the election in 1999. He retired many military officers in political positions, established a panel to investigate human rights violations, freed prisoners held without charge and located secret funds hidden by previous regimes, but there is still a long way towards a fully functioning democratic state (IFES, Nigeria). Corruption is widespread, and there are numerous ethnic and religious clashes around the country. The first peaceful transition from one democratically elected government to another happened in April 2003 when Obasanjo was re-elected, even though many cried out foul play.

Nigeria is the world's ninth largest oil producer. It also sits on the world's ninth largest proven oil reserves and the seventh largest proven gas reserves (EIA 2006). *Despite 47 years experience of petroleum production, Nigeria still faces considerable challenges in transforming the oil sector into a substantial value adding activity for the Nigerian business, not to say the Nigerian society as a whole* (FIOH 2006:8). The legislation of the new democracy reads that the income from the production of oil goes to the central government and that at least 13 percent of the revenue derived from natural resources should be paid to the state where it is produced (HRW 2002:2).

3.2.1 Nigerian Government

The country is administrated through 36 states and the federal capital territory. The Nigerian constitution is inspired by the American. Like the United States, Nigeria is also a diverse country with a lot of different peoples and interests. The general idea is that a divided society should be governed in a decentralized manner, the system being federalism where some of the decision making is delegated to the different state governments (see Albert P. Blaustein). As a product of colonialism, the country can be

⁷ It is hard to know the exact number of Nigerians, all figures are projections. A census is taking place in the spring of 2006, but now as in the past, this is a major source of controversy (see Kokole 1994).

said to be a joining of people and regions in an artificial entity. However, it is a federal system, with what some would say - too centralized power.

Jibrin Ibrahim makes the following observation: *Over the past four decades, the Nigerian state has evolved from a federal polity characterised by three politically strong regions each controlled by the elite of a majority ethnic group, to a highly centralized system in which the so-called federating states have no real autonomous power and are at the beck and call of a strong centre in which enormous powers are vested in the hands of one person and one institution, the president and the presidency* (2000:57). With this, there is a sense that the central government is too controlling when it comes to matters of the states. In the Niger Delta, the control that the central government exerts over the oil revenue is the major source of frustration with the government's revenue allocation system. Others recognize the power the states are given within the constitution, and make this a governing issue because *you cannot have two sovereignties* (Obe 2004). The prime example of this would be how only some of the states practice Islamic Sharia law. As we can see, the federal system in Nigeria is a huge source of controversy.

On a scale of democracy, the Freedom House lists Nigeria as being 'partly free'. Most notably they point to the fact the Nigerians *can* change their government democratically, but the widespread corruption and violence keeps the country's score from being 'free'. International observers noted different kinds of irregularities during the 2003 election like ballot-stuffing and alterations of results (2005). Nigeria was ranked 144 out of 146 countries surveyed in Transparency International's Corruption Perceptions Index (2004).

3.3 The Conditions of the Niger Delta

The Niger Delta, as defined officially by the Nigerian Government, extends over about 70,000 square kilometres and makes up 7.5% of Nigeria's land mass. It includes land in Abia State, Akwa Ibom State, Bayelsa State, Cross River State, Delta State, Edo State, Imo State, Ondo State and Rivers State. Some 20 million people of more than 40 ethnic groups, speaking some 250 dialects live in the Delta (Wikipedia, Niger Delta). Their livelihoods are primarily based around natural commodities and

44.2 percent of the population work in the agriculture, fishery and forestry sectors (FIOH 2006:15).

The Niger Delta was part of the Biafra secessionist territory, and it has a long violent history (see Okonta and Douglas 2003 and Wole Soyinka 1996). The region has been getting recent attention because of different groups clashing, violent youths⁸ and the kidnapping of foreign oil workers.

3.3.1 Economy

It might seem like a paradox to look at Nigeria in the light of resource scarcities since of all the Sub-Saharan countries, it actually makes a reasonable profit on the export of its main commodity, namely oil. Almost all the oil produced by Nigeria – approximately 2 million barrels a day, comes from the Niger Delta (AAAS, Niger Delta Project). *Rivers, Bayelsa, and Delta states alone currently procure three-fourths of the country's crude oil* (Okonta and Douglas 2003:18). But it is a monocultural economy, since the oil boom in the 1970s Nigeria has neglect the agricultural base in favour of an unhealthy dependency on crude oil. In 2000 oil and gas exports accounted for 98 percent of export earnings and about 83 percent of federal government revenue (Countryreports.org, Nigeria)

The Niger Delta Development Commission, a government initiative to the development issues in the delta reports that according to the World Bank report (1995), GNP per capita in the region is below the national average of US\$280 despite the high population growth rate combined with severe habitable land constraints. Similarly, health indicators are low and they lag far behind the country average. There are disproportionately high fatality rates from water-borne diseases, malnutrition, and poor sanitation among others. The quantity and quality of housing and infrastructure are deficient in much of the region. Only about 20 percent to 24 percent of rural communities and less than 60 percent of urban communities in the region have access to safe drinking water (NDDC, the Niger Delta).

⁸ The word “youth” in Nigeria is used effectively to describe all young men who have not reached the status of “elder” (HRW 2005).

3.3.2 Ecology

The Niger Delta is one of the world's largest wetlands, and the largest in Africa. The mangrove forest is the largest in Africa (HRW 1999). *The Niger Delta region has the high biodiversity characteristic of extensive swamp and forest areas, with many unique species of plants and animals (Ibid).* It is home to not only 20 million people, but also three-quarters of the fresh water fish caught in West Africa, mangrove trees providing medicine, fruit, raw materials and protective barriers for the coast (Okonta and Douglas 2003:63). The same ecosystem that all this oil is extracted from feeds and supports almost 20 million people. *Most are minorities that historically found safe haven in the delta; they now struggle to maintain their identities and livelihoods as part of its ecosystem (AAAS, The Niger Delta Project).*

The American Association for the Advancement of Science concludes that the Niger Delta is one of the world's most endangered ecosystems. They point to an almost complete lack of environmental concerns from all instances as part of the problem besides the oil production (AAAS, The Niger Delta Project). Michael Watts describes the situation in the Niger Delta as an environmental nightmare (2004:287). Peter P. Ekeh states that *there is no region of the world that is as much subject to environmental abuses as Nigeria's Niger Delta* (Waado, Editors Introduction). Human Rights Watch (1999) observes that the mangrove forest is still relatively intact with only 5 to 10 percent has been lost to settlement or oil activities. The lowland rainforest however, is virtually gone.

3.3.3 Accountability

The companies that have been operating in the Niger Delta, some for up to 40 years, have long been accused for not taking the proper environmental impact assessments. *In the past, critical analysis has identified the Federal, State and Local Governments to be in complicity with the oil companies therefore providing implicit protection to the oil companies' lack of social responsibility (NDDC, The Niger Delta).* The technology and means of value adding is in the hands of the oil companies and not the Nigerians. For instance, one of the reasons for the extensive use of gas flaring is that

the local community does not constitute a market for this type of energy (ERA 2005:23).

The Nigerian government's accountability shows in the way they are attempting to do something about the problem. The new democratic government does have an environmental minister, but the management of environmental problems in Nigeria is not given a lot of administrative attention (see Mba et al. 2004). Nigerian governments as far back as 1969 have requested the oil companies to set up facilities to use the associated gas from their operations. In 1980 the government changed the legislation so that fines would be given when the gas was flared and not utilized, but the government could not and still can't enforce this regulation (ERA 2005:24-25).

Also when it comes to accountability, the high level of corruption throughout the entire country is worth mentioning again. A recent example of bad economic practice in the country happened when auditors uncovered a huge difference in the oil revenues. On May 4, the Daily Champion reported: *President Olusegun Obasanjo yesterday stalled the presentation of an audit report on the nation's oil and gas sector following inability of the audit firm, Hart Group to trace a \$250 million (about N33.3 billion) net difference and \$1.264 billion (about N168 billion) gross difference in the accounts* (Adelaya 2006).

3.4 Environmental and Population Pressures

Pollution was a problem reserved for the modern world as it came with the increased industrialization, but now the degradation of the environment as a consequence of human activity is becoming a highly present factor in the third world. In the Niger Delta, most of the country's crude oil is extracted, and this is what constitutes most of the environmental problems for the local population. The director of Environmental Rights Action Nnimmo Bassey (2001) says that centuries and millennia of human activity has left its mark on the environment and that the result has been that the higher the cultural civilization we have managed to build from transformed nature, the higher the level of devastation we have wrought on the environment. Zak Harmon (1997) lists some of the environmental damage as declining agricultural productivity; land degradation, disease, erosion, fisheries depletion, illegal logging, deforestation,

proliferation of exotic species, toxic and hazardous substance pollution, vehicular emissions, sewage and municipal wastes.

3.4.1 Supply Induced Scarcity

There is supply induced scarcity when there is a shortage of resources. In this context, the underlying rationale for this type of scarcity will be human activity like pollution of various kind causing degradation and depletion of renewable resources. In the Niger Delta, the main human activity causing the pollution of the environment is the production of crude oil and natural gasses. These operations have essentially caused degradation to the environment within an extremely fragile eco-system and destroyed the traditional livelihoods of the Niger Delta. Pollution has affected the atmosphere, soil fertility, waterways and mangroves, wildlife, plant life, aqua-life and, has resulted in acid rain. *Fishing and agriculture are no longer productive enough to feed the area and, in the Ogoni region, for example, food is imported in an area once known as the food-basket of the Niger Delta. The population is prone to respiratory problems and partial deafness* (NDDC, The Niger Delta).

3.4.1.1 Oil Spills

The World Bank estimates that oil companies in Rivers and Delta states spill about 9000 cubic feet of oil in three hundred major accidents yearly. On its part, Shell says it spilled an average of 7350 barrels of oil a year between 1989 and 1994, and that a total of 221 spills occurred in the course of its operations during the period (Okonta and Douglas 2003:66). The actual number might be a lot higher. As an example, according to the Human Rights Watch there was a major spill from a Shell wellhead on the land of the Ogoni population on April 29, 2001, and even though the production in the area remains closed, the wellheads were never properly secured. Oil sprayed up in a fountain over a very wide area, damaging farmland. The cleanup operation at the site had not been completed almost one year later (2002:20-21). There was a debate between the local Ogoni population and Shell over who was to blame for the spill, Shell claiming vandalization and the Ogonis claiming corrosion and neglect by the oil company. Oil companies do not pay compensation where spills are caused by vandalism, but the damage to the pipes is rarely if ever caused by those who suffer the dam-

age from the spill, and they can thus face economic hardship (see ERA 2005, Okonta and Douglas 2003). Their method of cleaning is however very questionable as the soil is scooped up and set on fire. Such fires have resulted in massive devastation of farmlands, forests, rivers and communal property (ERA 2005:15).

The impact of all oil related activities on the environment of the Niger Delta is widespread and substantial (World Bank 1995:xi). Impacts of oil spills are as can be imagined, potentially devastating for natural life. According to the Oil Spill Intelligence Report, oil spills have a negative impact on wildlife including birds, mammals and fish stocks (Waado, Oil Spill). One observer states that: *It is noteworthy that, the devastating consequences of the spill of this crude in the Niger Delta region with its eventual hazards on both aerial and terrestrial environs tantamount to an irreversible chain effect on both the bio- diversity and human safety* (Akpofure et al.)

3.4.1.2 Gas Flaring

Travelling in the area is like flying over Dante's inferno. Wherever you look you see those goddamned flares was the statement of Clive Wicks from the World Wide Fund for Nature after a tour of oil installations in Nigeria (Okonta and Douglas 2003:67). Gas flaring is one way of disposing of unwanted gasses from the extraction process. It has been deemed illegal by international instances and the Nigerian government, but it still being done throughout the region. The light and noise from the flames is constant, and observer Greg Campbell describes a village where no one under the age of 29 have ever known a dark and peaceful nights sleep because of flaring. The flares roar like a waterfall and can be heard half a mile away. Also the temperatures are higher than average (2001). When the gas is flared it produces thick soot, which contaminates the water when it rains (ERA 2005:23-25).

The effects of the flaring are serious, imminent and constant and it produces emissions that are more than the combined emissions of the rest of sub-Saharan Africa (ERA 2005:24). Some of the severe consequences from the gas flaring are: light and noise pollution; people near the installations have their nights turning into days and can become half-deaf from the roaring sound, acid rain and air pollution; destroying the environment and their food sources and making people prone to respiratory

diseases, and the flames create heat and places of danger. The toxic emissions have also been linked to serious health consequences, some being strange illnesses and even stillbirths and deaths (see ERA 2005, Okonta and Douglas 2003, FIOH 2006, Osefoh 2004, HRW 1999). Acid rain gets into peoples drinking waters, one scientist found 250 – 37000 times the legal E.U. standard of total petroleum hydrocarbon (TPH) in the water of five villages (Okonta and Douglas 2003:93).

3.4.2 Demand Induced Scarcity

This kind of scarcity is experienced when the number of individuals competing for the resources surpasses the actual amount of resources found. According to NDDC the population of the Niger Delta increased greatly in the 1980s, and at the same time, the awareness of the extreme consequences of the constant pollution was getting international attention. Nigeria is today the most populous country in Africa with its more than 130 million inhabitants, and with an annual growth rate of 2.45 percent (countrystudies.org, Nigeria) one could say that the country is experiencing a degree of demographic pressure. The Niger Delta also has a particularly high population density, 246 per square kilometre being the average (FIOH 2006:15), almost twice that of the national average of 124.98 per square kilometre (CIA 2006).

Rapid population growth is increasingly exerting pressure on cultivable land, a good part of which is prone to flooding almost all year (Okonta and Douglas 2003:19). The visible result of such an increase in the population can be seen in the cities in the region. Okonta and Douglas observe that the population of Port Harcourt and the other major towns is literally exploding (2003:19). Urbanization and poverty does not mix well, unemployment and crime are the likely results.

3.4.3 Structural Scarcity

This last type of scarcity happens when the resources available are not evenly distributed. In this regard, one major concern among the people in the delta is that they feel that the government revenues are not equally distributed. The region producing the country's wealth is actually on average poorer and less developed than the rest of Nigeria. The GNP per capita in the region is below the national average of US\$280. As

mentioned, only 13 percent of the revenues from Nigeria's oil production is allocated back to the state where it was produced.

Spilled oil does not discriminate, but the Ogoni is one ethnic group that feel like they as a minority have been especially targeted in what Okonta and Douglas call a ecological genocide, as very little was done to clean up the spills in their region (2003: 74-81). The oil also plays a part in the societal construction as it creates a petro-elite when only some people are profiting from the production.

3.4.4 Grievance

A lot of the pollution is to a large degree observable. The gas flaring in the sky and the dirty rivers and fields are examples of that. But some of the environmental degradation is more hidden, like the loss of biodiversity in this large wetland. Another factor that perhaps is not as visible, and not easily empirically collected, is the way that environmental degradation effects people on a more psychological level. It is likely that the full ramification of the widespread pollution is not yet fully understood.

It is natural to think that the local population are experiencing physical and health related problems that can be ascribed to the poor living conditions and the social effects of the environmental degradation. However their mental frustration about these grievances is not easily identified until it is seen as actions. One attempt of conveying the horror is done below, in the exert from the poem *We thought it was oil But it was blood* by Nnimmo Bassey (ERA).

Dried tear bags

Polluted streams

Things are real

Only when found in dreams

We see their Shells

Behind military shields

Evil, horrible evil gallows called oilrigs

Drilling our souls

A group of researchers travelling in the Delta region made the following observation: *It is surprising to note that, most places we went, the extent of damage on the biodiversity, vegetation, psycho-socio-physio-economic integrity of the victims were sincerely beyond human description* (Akpofure et al.). A farmer/hunter/fisherman made the following testimony: *I was going to my farmland with my wife...to harvest cassava and check my traps in the Mini-Ihe forest to see whether the traps had caught some bush pigs and grass cutters we use for food. At about 10 a.m., just in front of us we heard a huge explosion and suddenly bad odour of gas mixed with fuel, and later a big tongue of fire ravaging nearby farmlands, forests, including my own. See! All my farmlands of cassava, traps and fishponds are burnt* (Mr. Woke quoted in FIOH 2006:24). As their local community is no longer self-sustainable, they get the incentive to leave. Indigenous people seeing themselves as custodians of nature and resources see their foundation of life disappearing.

When it comes to health and general quality of life, the oil production has a huge impact, even if some might say that it is not scientifically proven. One indicator is life expectancy, the average life expectancy in Nigeria is 46.8 years, and this figure is lower in the outer Delta (FIOH 2006:15). Another cause of emotional distress is the fact that graveyards have been dug up and its content dumped in the ocean to make roads to well heads (Okonta and Douglas 2003:83)

In addition to the frustration felt concerning the unequal distribution of the wealth coming from the oil production, its fair to say that the local population is bearing the negative consequence of the extraction. News of ethnic militant groups attacking the pipelines in protest of the way that the oil companies exploit the local communities and impoverish the local population is in a way symptomatic for this grievance.

3.5 The Conflict in the Niger Delta

The conflict in the Niger Delta is not one easily understood as there are a lot of forces and interests at work. A Human Rights Watch report state that the conflict during 2003 has lead to the killing of hundreds of people, the displacement of thousands and the destruction of hundreds of properties (HWR 2003:2). Samuel A. Igbatayo writes that since the 1990s, the Niger Delta has degenerated into a dangerous theatre of vio-

lent conflict, sustained by ethnic militias, tribal warlords and misguided youth (2004/2005). BBC news (2006) reports that a recent report commissioned by Shell said that the level of conflict in the region is comparable to Colombia and Chechnya.

One explanation is to look at how there is a struggle among local leaders for oil revenue and government funds (HRW 2005b) and the inhabitants of the Niger Delta protesting against the distribution of the government. *Attitude surveys have shown a phenomenal change in public opinion in the Niger Delta from 2000 to 2003* (FIOH 2006:26). More interestingly, the attitude in the Niger Delta is much more negative than the rest of the country. To the question “Overall how satisfied are you with the way democracy works in Nigeria?” only 13 percent answered fairly/very satisfied in the Niger Delta, as to 37 percent of other Nigerians (Ross 2004:42). This shows the inhabitants dissatisfaction with the central administration. When it comes to local uprising against the federal government, the Niger Delta Peoples Volunteer Force (NDPVF) declared all out war on the Nigerian state on September 27th 2004 (HRW 2005a:19).

Some of the local uprising against the oil companies has come in the form of crowds carrying palmleaves, but it is the violent attacks that gets the most attention. The Guardian (2006) reports that a group known as the Movement for the Emancipation of the Niger Delta (MEND) has admitted responsibility for a number of attacks against oil installations in the region resulting in the loss of lives security forces and oil workers, and four was kidnapped. MEND is asking for the payment of \$1.5 billion to Bayelsa State to compensate for the pollution of the environment and the immediate release of the leader of NDPVF, Alhaji Mujahid Asari Dokubo, who is standing trial for treason. They are said to be trying to reach their goals by crippling the oil economy in the country.

Igbatayo reports that ethnic groups in the Niger Delta have battled each other over local governance and the control of natural resources, resulting in the maiming and killing of innocent people, including women and children (2004/2005). In the Delta state, there are three ethnic groups involved in the violence – the Ijaw, Itsekiri and the Urhobo. Human Rights Watch assesses that the Itsekiri, the smallest of the three, have been the main victims of violence largely at the hands of the organized

Ijaw militia (2003:2). Both the Urhobo and the Ijaws alleged that the distribution of the electoral wards was in favour of the Itsekiri (IRIN 2001).

When the different local groups are fighting each other, it is also often related to the oil business. HRW identifies the main perpetrators of the violence as two armed groups, the Niger Delta People's Volunteer Force (NDPVF) and the Niger Delta Vigilante (NDV). There is also a conflict between the Bille and the Kalabari people, which has probably led to more than one hundred deaths, centered on the "ownership" of oil facilities and the benefits that flow from being designated "host community" by an oil company according to Human Rights Watch (2002:8). The different youth groups are essentially fighting each other over bunkering routes to steal and sell oil illegally. In a way, the fight for resources is a fight over territory, because that is where the resources are.

4. Analysis

4.1 Introduction

Article 24 of the African Charter on Human and Peoples' rights (1981) states that: *all people shall have the right to (a) safe and generally satisfactory environment favourable to their development*. The aim of the first part of the analysis is to see if this human right is being respected in the Niger Delta by identifying traits of the situation in the Niger Delta that is consistent with the theoretical outline. To analyse the relationship between environmental scarcities and the outbreak of violent conflict from the outlined theoretical framework, I will work my way from the definition of scarcities, the social effects arising from these scarcities and the subsequent movement towards violence before I look at the intervening variable of an African democracy in the case of the Niger Delta.

The second part of the analysis is based on the conclusion of Hauge and Ellingsen's research, saying that environmental degradation alone is not a sufficient cause of conflict. Other critics of the theory of environmental security have also pointed to the possibility of other factors contributing more to the upsurge of violence than the actual resource question, like the regime type. In this thesis, the regime type is a new democracy in sub-Saharan Africa. What this form of state system will have on the possibility of conflict rising from environmental scarcity is what will be explored in the end of this chapter. The nature of the Nigerian state, the constitutional design and the prevalence of neo-patrimonial frameworks within the society will be looked at, and state exploration hypothesis will be used to look at the predatory elites. The common denominator for all these facets is the money coming in from the production of oil. Oil appears to be "leaking in" through most levels of society.

In order to make the causal steps from observing the environmental damage and its causes to the social effects, I will be using the empirical descriptions of the condition of the Niger Delta. I will be keeping in mind that the pathway to conflict, especially in this case, is not a simple one, but having the focus on the conflict on scarcity of renewable resources and its social effects as the conflict generating factor. To see to what degree the conflict in the Niger Delta can be attributed to the causes outlined

in the theory of environmental security, I will follow the theoretical framework previously laid out.

The empirical contribution to the analysis will be based on general observations of the natural surroundings that can be made by both professionals on the subject of environmental degradation and by local people affected by the pollution. This is because it is the aim of the analysis to see the depletion of the land like a local resident would, in order to pinpoint the frustration and grievances.

4.2 Scarcity in the Niger Delta

Looking at the various descriptions of the condition of the environment in the Niger Delta made in the previous chapter, and the fact that the rainforest is gone (HRW 1999) the label environmental nightmare doesn't seem too far fetched. It is a relatively easy task to identify the three different types of environmental scarcity that Homer-Dixon and the Toronto-group outline in the Niger Delta. It is clear that the renewable resources like cropland, forests, water and fish stocks are disappearing in the areas where people are depending on them for survival live. There are many directly affected by the immense environmental changes because it affects their very livelihood. Since everyone depends on clean water, not only fishermen and farmers are affected. One could also easily say that the structural scarcity makes a greater impact on people in a situation where resources are already scarce.

One potential problem with analysing the impact of oil pollution in the Niger Delta is the fact that neither the oil companies nor the Nigerian government have funded the scientific research that would allow an objective assessment of the damage caused by exploration and production. She has claimed that the credibility of the environmental reports available is very low and that a lot of the damage that these reports point to is not a direct result from the oil extraction (HRW 1999). And even if the oil is spilled, it's not the oil company's fault and they blame it on vandalism, as is done 80 percent of the time when spills occur. *In cases of sabotage, in accordance to Nigerian law, the oil companies do not pay compensation* (ibid). The oil companies are however required to take the necessary precautions to prevent pollution through the Nigerian Petroleum regulations. Still many will claim that they allow practices in

Nigeria that would never be tolerated in North America or in Europe. Shell has even defended the idea of national rather than international environmental standards and one director claimed that higher environmental standards could harm local economies. Human Rights Watch point out that Shell keeps on flaring gas illegally and that many of the pipes that run above ground are much older than the estimated 15 years maximum lifespan, and the corrosion make further spills more likely. It is not only the spilling of oil that causes environmental problems, the oil companies also build roads and canals that are destructive in a different way.

Nevertheless it is not really important to the context of this thesis whether or not the oil companies are right in their assumptions because it is the perceived destruction, real or not that will make up the incentives for the affected people to revolt. But it is not hard to imagine that the renounce of guilt from the oil producers have a psychological effect on the people in the Niger Delta, fuelling the frustration and the grievance since their claims and outcries are not taken seriously.

4.2.1.1 Supply Induced Scarcity

As we remember, a situation with supply induced scarcity happens when the resources that people depend on are degenerated faster than they renew themselves so that a shortage of the resources is created. For example, a forest that is cut down takes a long time to grow back even if the natural conditions allow re-growth. To cleanse polluted waters is not an easy task, even with the equipment and the resources, and cropland lost to floods and oil spills is not restored over night. In this view one might even call the changes that the oil companies impose on the environment in the Niger Delta irreversible, at least for the foreseeable future. Because even though resources like forests, crops and fresh water theoretically can renew themselves, in a damaged environment they are not given the opportunity to do so.

From the seven major environmental problems facing various parts of the world identified earlier by Homer-Dixon, acid depletion, deforestation, degradation of agricultural land, overuse and pollution of water supplies and depletion of fish stocks are with certainty problems in the Niger Delta. In addition to gas flaring and the emission

of fumes/gasses into the atmosphere is as agreed on by most scientists, contributing to global warming⁹.

It can hardly be questioned that the mangrove forests and fresh water swamps in the Delta area are experiencing severe degradation. This degradation is clearly also a danger to the local residents' way of life. When the farmlands are left barren and there is no clean water, the frustration of the locals is not hard to understand. Another point to make is that most of the people in the delta region have a livelihood based on fishing and farming, so the scarcities constitutes a cut not only in their food stock but also in their economic base.

4.2.1.2 Demand Induced Scarcity

An increase in the demand means there are more people in need of a resource than exists of that resource to go around. This happens either by an increase in population or by an increase in the demand for the resource. A resource is rivalerous when one person consumes it makes it less available for others. From Homer-Dixon's examples of renewable resources that are rivalerous; fisheries, cropland, forests and water, all are being degraded in the Niger Delta. According to the theory of environmental security, this can be said to be a strong indicator that demand induced scarcity is very much a reality in the local communities in the Delta.

As mentioned, Nigeria is a big country, not only in size but most notably in population, which is the highest in Africa. It has a population density which is ranked 84th in the world with 124.98 people per square kilometre, approximately the same as Denmark ¹⁰, in other words high (CIA 2006). The birth rate in Nigeria is 38.24 (per 1000) and the official government view is that this number is too high (Countryreports.org, Nigeria). The future shows little sign of reversal. Homer-Dixon predicts that Nigeria's population will be doubled in the next 20 – 30 years (1999:55).

One illustrative example is provided by the Ogoni people who live in the Rivers state number approximately 500 000, but the region of Ogoni but lives on a very

⁹ It is beyond the scope of this paper to get into the ongoing debate on what causes global warming.

¹⁰ As another comparison, Norway has about 14.42 people per square km.

small area and the result is a very high population density. An average of 490 people per square kilometre is the reality (Ebeh). This is almost four times higher than the already high Nigerian average. When large oil spills then turn the Ogoni areas into wasteland, the demand induced scarcity becomes even more visible and easier to understand.

Demand induced scarcity leads to migration. Also when agriculture in the rural areas is not providing the foundation people need for their existence, the incentive to move to a city is high. Urbanization is a problem in the delta region, the population in major cities is literally exploding. *The ensuing scenario – urbanization without the economic growth that would ordinarily generate more jobs - has resulted in the human ecologist's ultimate nightmare: a growing population that, in a bid to survive, is destroying the very ecosystem that should guarantee its survival* (Okonta and Douglas 2003:19).

4.2.1.3 Structural Scarcity

This form of scarcity happens when some groups get their access to the resource limited, and the portion of the resource they get is too small to sustain their wellbeing. Ike Okonta, describes how the ethnic group the Ogoni is being treated unfair compared to the other ethnic groups: *Outnumbered and without representation in a political regime that centralizes strategic resources (including the Ogoni's own oil wells) by fiat and distributed them accordingly to how many 'tribesmen' you were able to deploy in the vicious field of power politics, the Ogoni were poor, denied meaningful employment, schools, hospitals, electricity and pipe-borne water* (Okonta 2005). It seems like there are forces at work to deliberately keep this specific ethnic group away from the resources in the area where they live, at the same time as the resources themselves are being eaten away by the oil spills and pollution.

Interesting to note is that both the numerically weak, the Ogonis and the largest ethnic group in the region, the Ijaws both claim unjust treatment. The Ijaw, in addition to feeling overlooked in the distribution of electoral wards feel they have borne the brunt of the damaging effects of oil production and are increasingly militant in their demands. In January 2006 the Federated Niger Delta Ijaw communities

(FNDIC) kidnapped four expatriate oil workers (Daily Champion 2006). The Ijaw National Youth Congress is another militant group whose threat comes in the form of invasion of flow stations, lock-outs, vehicle seizures, disruption of oil operations and kidnapping. The Movement for the Emancipation of the Niger Delta (MEND) kidnapped nine foreign oil workers in February 2006 and their demand was that Shell should pay 1,5 billion dollars to Ijaw fishing communities whose waters have been polluted by oil (Shezi 2006). The before mentioned Ken Saro-Wiwa's organisation Movement for the Salvation of the Ogoni People (MOSOP) have followed a more peaceful approach, calling for the recognition of the Ogoni as one of the world's endangered minorities to the United Nations Minorities Council (Soyinka 1996:4).

The law that is the principal statute governing property in Nigeria is the 1978 Land Use Act, which states that: *All land comprised in the territory of each State in the Federation are [sic] hereby vested in the Governor of that State and such land shall be held in trust and administered for the use and common benefit of all Nigerians* (Section 1, Decree No. 6 of 1978, Cap. 202, *Laws of the Federation of Nigeria*, referenced in HRW 1999). This legislation is formulated to give all Nigerians the right to the land. As we see however, this is only in theory.

4.2.2 Social Effects

According to the theory of environmental security there is a connection between environmental scarcity and various social effects. These social effects in turn constitute the grievance that might lead to conflict. In the case of the Niger Delta, both the presence of a conflict and the widespread scarcity have been identified. However, a description of the causal step in between is necessary to make this link clear.

4.2.2.1 Constrained Agricultural productivity

A lowered production in the agricultural sector is a social effect that can be said to be directly linked to the supply-induced scarcity. Obvious logic tells us that farmers need healthy land to grow their crops and that fishermen are reliant on a stock of fish nearby. When the natural wildlife is also affected, the chances of living of the environment decrease even further. It is worrisome also that seemingly no incentive exists to turn the process around, so the destroyed cropland and rivers stays barren. The oil

companies technique of burning oil spills as a method of cleaning up have resulted in massive deprivation of farmlands, forests, rivers and communal property (ERA 2005:15). In addition, the Niger Delta isolated has one of the highest population densities of the world, and the rapid population growth is increasingly exerting pressure on cultivatable land (Okonta and Douglas 2003:19).

Without making light of this serious issue, the lack of food is a major source of frustration. Human Rights Watch outlines a scenario of the devastating individual long term impact of spills on people living in the dry land or near fresh water swamps areas where the effects are concentrated. Oil leaks are usually from high pressure pipelines, and therefore spurt out over a wide area, destroying crops, artificial fishponds used for fish farming, “economic trees” which are valuable trees owned by particular families and other income generating assets. *Even a small leak can thus wipe out a year’s food supply for a family, with it wiping out income from products sold for cash. The consequences of such loss range from children missing school because their parents are unable to pay fees, to virtual destitution* (HRW 1999).

4.2.2.2 Constrained Economic Productivity

Deriving from the previous point of constrained agricultural productivity, it is not hard to see that for the fishermen and farmers in question, their economic output will be dramatically reduced. Indigenous peoples living off the forests by hunting and gathering are also very much at risk in an environment that is being degraded as their very way of life and existence is threatened. Finding an alternative income is sometimes very hard, even for people with higher education. Unemployment rates in the Niger Delta are high.

Poverty is naturally also a major source of frustration and grievance. The fact that the annual incomes in the Niger Delta is far below the country average of \$280 (Okonta and Douglas 2003:19), should also be evidence of the constrained economic output as well as indicating structural scarcity on a national level.

4.2.2.3 Migration of the Affected People

The availability of food and also the economic output can be said to make up a strong incentive to relocate in search of better opportunities. When the people affected by

pollution and scarcities in the countryside decide to move into the cities, the demands on the city infrastructure increases, creating unemployment, poverty and crime.

The fact that the cities swell with people without employment increases not only the risk of crime, but it also in the words of Homer-Dixon, constitutes a particularly volatile group that can be easily mobilized for radical political action. In the Niger Delta, a lot of the militias are made up from groups of young, frustrated men. Human Rights Watch observes that the Niger Delta People's Volunteer Force (NDPVF) and the Niger Delta Vigilante (NDV), two powerful armed groups, are primarily comprised of young Ijaw men (HRW 2005a:4). In addition to getting a violent outlet for their frustration, these groups provides them with an opportunity to make money from bunkering oil from installations and pipes and selling it on the black market.

4.2.2.4 Greater Segmentation of Society, Usually Along Existing (Ethnic) Clevages

The different groups seem to be using the hardship to form internal unity where they as one ethnic group stand together against "the others", but also against the central government and the oil companies. The different organisations/militant groups seem to have an element of ethnicity, most notably in their names like the Ijaw Youth Council who launched Operation Climate Change and The Kaima Declaration as weapons against the pollution in the area, and Ken Saro-Wiwa's Movement for the survival of the Ogoni People (MOSOP). Other more violent groups in the Delta also have a strong ethnic base, as the above mentioned NDPVF and NDV.

The segmentation along existing ethnic lines is not as observable as poverty, hunger and migration, the way that elites tightened grip on resources and its profit is visible by looking at winners and losers. To feel deprived and seeing others success might in turn strengthen the "us" and "them" view of society. If demographic and environmental pressure encourages powerful groups within a society to shift redistribution in their favour, there is an opportunity to do so in Nigeria. Looking for example at the way that the outnumbered Ogoni people are treated, it is obvious that they are losers in the situation.

4.2.2.5 *Disruption of the State*

This is perhaps the social effect that is most difficult to identify, particularly as a direct effect of the environmental scarcity. In the case of the Niger Delta there seems to be several factors disrupting the various institutions, like ethnic conflict and corruption. When it comes to causing conflict, this is the most important social effect which is also affected mostly by the other social effects of environmental scarcity. For example, constrained economic productivity erodes confidence in the national purpose and weakens the tax base (Homer-Dixon 1999:98). A problem like environmental scarcity and the social effects that it produces can reduce the capacity of a state and its institutions.

Another critical issue in this regard is the issue of providing security. In Max Weber's definition of the state, it holds the power to use legitimate violence (Østerud et al. 1997:259). In Nigeria and other African countries it is more and more common to hire private security or mercenaries of some sort to provide safety, undermining the national police and security forces and their capacity to secure the individuals of the nation. Also, according to Human Rights Watch several hundred soldiers and sailors are permanently deployed in the Delta state. *One of their primary duties is to protect oil installations, regarded by the Nigerian government as a national security priority* (HRW 2003:21). In other words, Nigerian military personnel are guarding foreign installation from Nigeria's own citizens.

4.2.3 **Environmental Conflict in the Niger Delta**

The nature of the conflict in the Niger Delta is as mentioned very complex. There are several different actors with stakes in the fighting. An attempt to make a description, the conflict must be said to be internal in its structure. The companies being targeted do not represent a specific nation-state. The tension runs through different levels, with the local communities at the group level and the federal government of Nigeria at the national level. Like Homer-Dixon predicts, the violence can be said to be sub-national, persistent and diffuse because it happens within the borders of the country. It has been going on for decades, and some of the groupings that rebel are hard to identify and they fight for different reasons. We see that at the same time as full on

war has been declared on the Nigerian state, some of the ethnic groups are at battle with each other.

What distinguishes the situation in the Niger Delta from the one that Homer-Dixon describes in the theory of environmental security, is that the grievance and frustration is directed most notably against the institution that the inhabitants of the region believe causes the degradation, namely the oil companies. The protesting takes the shape of vandalism directed against the oil companies and different oil installations and kidnapping of personnel, mainly western employees. Sabotage serves several purposes; it gives the rebels an income in the form of illegal bunkering of oil and black market trade. It also affects the production, hurting the companies and at the same time raises the price per barrel globally. In January 2006, nine percent of Nigeria's oil output was lost due to the resurgence of crisis in the Niger Delta (Oduniyi and Nkanga 2006). On April 12th 2006, the price of oil per barrel was as high as \$70 because of after news of renewed threat by Ijaw militants to attack oil companies and production facilities in the Niger Delta sent fresh fears of supply crunch to the international oil market. Already, the continued loss of more than 550,000 barrels per day of oil production by Nigeria, has split the Organisation of Petroleum Exporting Countries (OPEC), over how to make up for the losses (Oduniyi and Ezigbo 2006).

The violence that gets the most attention is the before mentioned vandalism by the local communities directed against the oil installations and the kidnappings of foreign oil workers, but there is also fighting between the different ethnic groups in the area. HRW concludes that the violence in Rivers state primarily is the result of a struggle between NDPVF and NDV for control over illegal oil revenues (HRW 2005a:2). Groups in the Delta have long had ownership disputes over geographical areas, and there are movements that call for independence from the Nigerian state. Threats of secession are not taken lightly, for example, the leader of the Niger Delta Volunteer Force Alhaji Mujahid Dokubu-Asari was arrested in October 2005 accused of treason after publicly calling for the break up of Nigeria (Olori 2005). Human Rights Watch points out that ownership of territory is closely linked to the question of representation in the formal structures of government, both at local and state level

(2003:3). This is linked with the federal question of Nigeria and will be looked further into in the second part of this chapter.

4.2.3.1 Grievance

The hardship experienced by the people directly affected by the extraction of oil has been thoroughly laid out even though it is hard to fully understand the extent of the environmental atrocities for someone not living the nightmare. The aesthetic and monetary value of the natural surroundings are effecting peoples way of life in many ways, but the degradation is also felt at a very intimate and personal level with the low life expectancy and the high instance of premature births. The actual quality of life is also seriously compromised with noise, light and air pollution, all coming from the oil installations. To make the distinction of relative deprivation, the people in the local communities have to perceive their standard of living as being lower compared to other groups or with the status quo. Ted Gurr (1985) wrote that people perceive their grievance compared to their own status quo or compared to other groups who supposedly have it better. One point to make here is that the pollution and degradation from the oil production does affect all the people in a close proximity the same way. Even though the frustration over their joint situation might be the same, the distribution of the scarce resources as a result of the degradation might constitute a problem as well off groups and individuals in better positions have better opportunities and resources to handle the adverse situation. The difference between people becomes more visible and this might also lead to further segmentation of the groups.

In seeing civil strife as a function of the level of grievance felt and the opportunities to act on these grievances, it means that the people in the Niger Delta region affected by environmental scarcities in addition to incentives also need the resources to act. In these impoverished communities people still have found ways of protesting, and this is evidence that the grievance is felt at a high level. As it seems, the environmental situation in the region is not getting any better, there is reluctance to clean up spills and the oil production is only thought to increase over the next years. In this regard it might seem as more and more people are feeling the effects and people in the affected areas might experience heightened grievance and further deterioration of

their living situation. The future prospects are still bleak for the local inhabitants of the Niger Delta, and their grievance is getting little attention from the international community beyond the concerns about higher oil prices as result of the violence. In this sense, the grievance is only going to increase.

4.2.3.1 Types of Conflict

I will not try and label the type of conflict that is found in the Niger Delta, but I will try to point out some of the characteristics from the principal types of conflict caused by environmental degradation followed from the main theoretical perspectives on conflict. The simple scarcity conflict, which describes actors rationally calculating their interest in a game situation, can be transferred to the way that the militant groups think when they go to war against the oil companies. Calculating their potential loss they find an incentive to revolt based on the principles of game theory in the structural perspective on conflict. Frustration-aggression theories can also be used in describing the situation when looking at the way people feel when their livelihood is being degraded. Relative deprivation is a fair description of the disposition farmers and fishermen potentially feel they are in when finding their source of income gone or covered in crude oil.

To characterize the conflict based on group-identity is also doable when looking at the fact that the population of the Niger Delta tend to join their ethnic group when protesting. A sense of “us” and “them” can also be strongly detected when for example looking at the Warri crisis where the Urhobo and the Itsekiri fought each other over the ownership of the resources, and when the Ijaws and the Urhobo made allegations and protested against the distribution of electoral wards being in favour of the Itsekiris.

4.2.4 Adaptation

Is there ingenuity in the Niger Delta? Given the severity of the scarcities and the environmental degradation it might look like the ability for the local communities to adapt is relatively small. One major exception might be seen in the groups that have used the oil pipes that run above ground to make a living by illegal bunkering. Oil is taken directly from the company’s pipe and sold on the black market. The theoretical

amendment to grievance as the incentive for rebellion, opportunity to act out the frustration can be seen in context with the illegal bunkering as it provides the militant groups with economic funds to carry out acts of violence. People have also used the flame from the gas flaring in innovative ways, for example to dry cassava.

Little of the technology coming into the country in the form of petroleum engineers and their knowledge benefits the Nigerian population. The people employed in the oil industry are mainly foreign. With high unemployment even among the university graduates, this practice can not be said to be in the best interest of Nigeria as no value is being added except in the national treasury. This is again leaving the country at a disadvantage when it comes to adaptation and technical ingenuity.

4.2.5 The Vulnerability of the Niger Delta

In a country or region where there already are major socio-economical problems, it is difficult to pinpoint the direct cause of the degradation caused by the extraction of oil. Years of mismanagement by military despots has put the country in a poor economic state (see for example Wole Soyinka 1996). Corruptive practises are still a major problem in today's civilian governed Nigeria, and are making past mistakes hard to correct. The oil money ends up in the hands of the central government and does not seem to be spent on project that could potentially generate income from other sectors, and prevent the strong monocultural economy. Not spreading the risk with other enterprises and with the oil sector not utilizing Nigerian human and material resources (see FIOH 2006) makes the economic infrastructure very vulnerable.

The ecological system of the Delta is highly unique, and the mangrove forest is particularly vulnerable to oil spills, because the soil soaks up the oil like a sponge and re-releases it every rainy season (HRW 1999). The fact that as many as 44.2 percent of the employed persons in the Delta are in the agricultural, fishery and forestry sectors (FIOH 2006:15) shows how many are dependent on the environment to make a living. With the additional burden of an increasing population, the natural and human conditions in the Delta are vulnerable to the devastating impacts of a deterring environment.

On another note, the Nigerian government on both federal and local level does not seem prepared at all for the devastating consequences. After looking at the environmental part of the conflict in the Niger Delta it is time to investigate what effect an African democracy have on conflict arising from scarcities. What is the effect of the newly democratized Nigerian government on the issue of environmental security in the Niger Delta?

4.3 Democracy in Nigeria and Environmental Conflict

Jack A. Goldstone outlines how environmental conflict starts and gets increased in impact because of circumstances: *In countries where regimes are actively involved in worsening the risk or toll of such disasters, or by making corrupt or ineffective response – political upheavals are likely to follow. Population changes and natural disasters, in vulnerable economical and political settings, are thus likely to provide the major violent environmental/demographic security issues for the foreseeable future* (2001:106).

The Nigerian democracy and civilian rule is new, and the legacy from the past is still imminent (see Cyril I. Obi 2004a). The challenges for the new democracy are many even without the conflict and environmental degradation in the Niger Delta. The country is divided along religious lines, with the most burning issue being the Islamic Sharia laws that some of the states have adopted. Politically, the constitutional debates continue. Recently there have been talks about extending the presidents rule to three terms, and this would mean that Obasanjo could run in another election. BBC news (2005) reports that both northern and southern leaders have held meetings and demanded that the next president should come from their respective areas. Another hot issue in Nigeria is the question of how many Nigerians are there. A census is being held in March of 2006 but this encompasses a great deal of controversy, which relates to religious and ethnic divides. The different groups are feuding over who is the majority and every other attempt to hold a census in Nigeria has resulted in allegations of misrepresentation and manipulation of numbers (see Sole Odunfa 2005 and Omari H. Kokole 1994).

The behaviour of the Nigerian elites and the widespread corruption are important points. State exploitation hypothesis will be used to look into these aspects of the Nigerian state. It becomes obvious that the traits of African democracy as outlined by Bøås and Dokken (2002) are present in this society. Chabal and Daloz describes the countries south of the Sahara as clientelistic regimes that have more or less reluctantly adopted the procedures of multiparty elections and *whatever the effects of multiparty elections, they have emphatically not lead to political behaviour that resembles substantively those to be found in Europe, North America, or even South East Asia* (2006:28). The political behaviour seen in Nigeria happens along vertical lines and is to a large degree based on personal relationships.

Clientelistic networks or systems of 'co-ethnic friendship' prevent the advent of any functioning formal bureaucratic organisation. The more resources bureaucrats control the more they operate though they were in charge of 'business'. All civil servants, even the lowliest, find ways of negotiating the powers bestowed upon them by their office (Chabal and Daloz 2006:267). This is in fact a description of the Nigerian bureaucracy and institutions of management. Ingenuity, or the ability to adapt presents a possibility of overcoming the obstacles of environmental scarcity, but also state management. The ability to face such challenges is therefore an important point and a test of the capability of the Nigerian democracy.

4.3.0 State Capacity

Homer-Dixon identifies four links between rising environmental scarcity and declining state capacity. First, environmental scarcities increase financial and political demands on the state. Second, resource scarcities affect the state via their effect on the elites. Third, predatory behaviour by elites often evokes defensive reactions by weaker groups that directly depend on the resource in question. Fourth, if resource scarcity affects the economy's general productivity, tax revenues to local and national governments can decline (1999:101-103), all of which in turn increases the possibility of conflict. The ability to withstand these trends and maintain state capacity is then an important factor in a volatile society as well as being crucial in building a democracy.

The capacity of the Nigerian state needs to be seen in the light of being a third world country with a complex and violent history and with a long and difficult road to the current democratic regime. Also, in the words of Ted Gurr, the absence of a strong bureaucratic-authoritarian state with less capacity and less resources to manage crisis, is what makes the states less likely to implement appropriate policies (1985:71). To analyse the notion of state capacity in the Niger Delta, I draw on the conceptual tools made by the Toronto group, presented as a table in the theory chapter. State capacity will encompass both the intrinsic characteristics of the state itself and the relationship between the state and society.

4.3.1.1 Characteristics of the State

From what is labelled characteristics of the state in the conceptual framework, I will first look at the human capital. The technical and managerial skill level of individuals within the state and its component parts is in a way hard to measure, but if we look at some characteristics already laid out on African democracy and the state of Nigeria, we can see that human capital is lacking. Firstly, the basic will of managing the government resources in the best interest of the public is not there. Secondly, the neo-patrimonial system that allows for the personal based relationships, can not be said to be in favour of increased technical and managerial skills because of its person-based characteristics. This is a kind of system that works for the people at the top and is constructed in such a way to ensure that they there.

Another concept is instrumental rationality. This means the ability of the different elements of the state to gather information and use it in a utility maximizing way. The question here is then *what* is the real interest of the state, and I will come back to this line of questioning in the state exploitation hypothesis section. From the actions of the civilian government however, it looks as if it is very much aware of the conflict and have taken steps to get some of the feuding parts to sit down and talk. One could say though, that this is just putting out the fire and not fixing the underlying cause of conflict.

When it comes to coherence, the third concept of state capacity, the first thing to remember is that Nigeria and the Niger Delta region are extremely heterogeneous in

their compositions. As mentioned, within this populous nation there are a myriad of different religious beliefs, languages and ethnicities. This is taken into consideration when it comes to the constitutional design of the nation, most importantly in the federal construction as I will point out a little later. Looking at Nigeria as a whole, it is easily noticeable that it is not only in the Niger Delta that conflict is brewing. The Islamic Sharia law in some of the northern states and other feuds between Muslims and Christians are major issues in the country. One recent issue concerning is the census that is taking place in the spring of 2006. Both religious groups compete of being the majority to have that as leverage in political issues.

Another indicator of state capacity used by the Toronto-group is resilience, or the ability to withstand sudden shocks and changes, is what a state need to protect itself from unforeseen problems. As a monocultural economy with 95 percent of the country's exports and 80 percent of federal government revenue coming from the oil extraction (Obi 2004a:13-14). Nigeria is in a sense putting all their eggs in one basket even though at the present time it is a guaranteed income and the demand for oil around the globe is high. The fact that attacking oil installations in the Niger Delta has had a substantial effect on the global oil prices must be a known fact to the rebels. Higher price per barrel will increase the income of the central Nigerian state. Therefore, one of the Movement for the Emancipation of the Niger Delta's (MEND) goals is to lower the production of oil in the country and this way hurt both the state and the oil companies. Their method of approach is vandalism in various forms.

4.3.1.2 The Relationship between State and Society

The first characteristic of state capacity in the relationship between state and society is autonomy, and indicates to which extent the state can act independently of external forces. Obi (2004b) describes the Nigerian petro-state, and points to the fact that since the early 1970's the country has been entirely dependent on earnings from the production and exports of crude oil. The state depends on oil as a source of national revenue, at the same time the Nigerian state has the sole ownership of all the oil production in the country. According to the Petroleum Act, a licence obtained from the Ministry of Petroleum Resources is required before any oil operation is commenced

(HRW 1999). This means in a way that the government has institutionalized the resource and is seemingly in control. But seen from another perspective, through these laws the central government has only found a way of institutionalizing their dependency on the income from the oil production. The implications of this practice affect the capacity of the state by lowering the autonomy. Since these oil companies occupy a central place in Nigeria's political economy, they have leverage over the state. Hence it is difficult for the state institutions to effectively regulate them. For example, the oil companies show little sign of stopping the practice of gas flaring even though it is now illegal to dispose of gas in this manner. Again, this affects the local population of the Niger Delta.

The state's fiscal resources is another indicator of state capacity. The more money it is in position of, the more capable it is to implement its policies on to society. The central Nigerian government gets most of its resources from the oil production, the highest estimate say 98 percent (Countrystudies.org, Nigeria). Oil is a lucrative commodity, but the country is still very poor. The spending of the central government is one of the issues that are being put into questioning by those who feel like the revenues are not reaching the places they are needed. Given that such a large portion of the population lives in poverty, and especially in the Niger Delta, this is not hard to understand. This can also be seen in the light of the next indicator of state capacity, the reach and responsiveness of the state in society. It is the degree to which the state is successful in extending its ideology, socio-political structures and administrative apparatus throughout society. The Nigerian federal system is meant to be a way of administrating the large and multi-faceted nation by having authorities closer to the different regions. If the federal system was working as it was intended, the reach of the central government would go far, but instead, Nigeria is very centralized in its structure. Chabal and Daloz writes in their observation of Nigeria that little distinction between the public and private spheres exists and, however authoritarian the state may appear to be on the surface, it is unable to assert either effective control of government or, even less, hegemony on society (2006:220-221). The state is in this sense poor and unable to reach the society.

The next indicator of state capacity is legitimacy. When it comes to the democratic principles of the state, this is a very important point since a legitimate state has moral authority and because of this is recognised by the public. It also provides recognition from other states. The one thing that Human Rights Watch point to when it comes to the authorities' handling of the rebellion in the Delta, is the impunity. The military youth that have been terrorizing local communities are getting away with it. The perpetrators that are caught are not being prosecuted and are also able to pay their way out of the hands of the law enforcement. In the conflict areas around Port Harcourt, the state government offered U.S. \$1800 for the return of each assault rifle and amnesty from persecution to encourage disarmament (2005a:20). Although the government initiative was a step to end the violence, impunity can not be said to strengthen the rule of law. In an attempt to build peace, an important human right is overlooked, the rights of the victims of their atrocities. This impunity can be said to weaken the legitimacy of the Nigerian government. It's hard to speculate as to why the Nigerian government is choosing this method of approach. However, Human Rights Watch found strong evidence to suggest that senior members of the state government at one time gave financial or logistic support to the leaders of both NDPVF and NDV (2005a:3). There could be a fear that prosecuting the violent groups would incriminate government officials at the same time.

The capacity of the Nigerian state is affected by several factors. The very fact that the population is increasing and the extent of the environmental degradation are, in the view of Homer-Dixon reason for the decreased capacity. Also, the different unresolved conflicts both in the Niger Delta and other religious/ethnic clashes do not show any great state capacity. Looking at all the components of state capacity, it becomes clear that the characteristics of the political sphere and the constitutional design are the main dilemmas. *Federalism as a conflict management system has failed and all parts of the federation are complaining of the lopsidedness in the distribution of the national wealth* (Agbu 2004:40-41) and the country's elites are rewarded within the patrimonial framework erected upon the distribution of petro-dollars (Obi 2004b).

4.3.2 Public Policy/Redistribution

Quentin Gausset and Michael A. Whyte note that studies of the African environment is seldom neutral. *Always in the argumentations there will be implicit and explicit claims about who best understands African environments and who should have the right to control them* (2005:22). Given the colonial history of the continent, it is an obvious point to make. Like Hauge and Ellingsen say in their outline of the shortage of Homer-Dixon's theory, land distribution, as well as the degradation of land, forest and water, is linked not only to demographic patterns, but also to economic and political factors (1998:303). *Environmental management must take more completely into account the complexity of local histories and of cultural, political and socio-economic context* (Gausset and Whyte 2005:22)

I have already established that there are structural scarcities in the Niger Delta, so we can see that the democratic function of redistribution is not functioning optimally. Better distribution is also one of the major outcries of the rebels in the Niger Delta. The strongest indicator of the skewed distribution can be seen in the nation's economic base. Clearly something is wrong with the redistribution of a nations wealth if 70 percent of the population live under the poverty line and the country has earned about \$ 340 billion in the last 40 years (Obi 2004b:6). The constitutional function that is held responsible in the outcries for better redistribution is the one that only grants the state where the natural wealth was extracted 13 percent of the profits.

Nigerian law provides that all minerals, mineral oils and natural gas are the property of the federal government¹¹. The Petroleum Act also provides in section 1 that *the entire ownership and control of all petroleum in, under or upon lands to which this section applies shall be vested in the state*. The Petroleum Act also requires a licence to be obtained from the Ministry of Petroleum before any oil operation is commenced (HRW 1999). In this way, the constitution of Nigeria favours the state and its clients, which Obi points out when he writes that the centralistic and monopolistic power of the state is reflected in at the point of distributive politics, particularly

¹¹ Article 40(3) of the 1979 constitution; Article 42(3) of the 1989 constitution; Article 47(3) draft 1995 constitution, referenced in HRW (1999).

as it defines those who control (and benefits) and others who lose out in the struggle of contesting claims (2004a:14).

4.3.2.1 Federalism

The question of redistribution in Nigeria is very much linked to the question of federalism. The call for better distribution is part of many of the feuding groups' claims. The frustration of getting a smaller piece of the pie than others have been put as the cause for taking up arms by the Ijaw Youth Council and other groups. On the account that virtually all of the federal income is from the oil production, it is not hard to imagine that the central government would fear a secessionist movement in the Niger Delta. The laws and regulations have been organized in a way that allows the administration in Abuja to take more than the lion's share of the money derived from the resources.

William Reno describes Nigeria, and calls federalism of this sort the institutional framework of a centralized national patronage system (1999:108). The way that federal structure was designed to ensure different groups autonomy, control over local resources and equal access to power at the federal level to all groups is thus not in effect. The reasoning behind constructing Nigeria as a federal state is on the basis of its diversity. The idea was that federalism was the best way of managing the mixture of beliefs, ethnicities and languages. Ever since independence there has been controversy around the organizing and the geographical borders of the states much on the basis of the distribution of state revenue. There is a strong historical factor in the division and administration of the territory. The Niger Delta was part of the Biafra secessionist territory. It was already clear then that the federal Nigerian government desperately wanted to keep Nigeria unified to remain in control of the oil resources laying under these wetlands (Okonta and Douglas 2003:21).

Cyril I.Obi and Osita Agbu ties the question of Nigerian federalism to the National Question, on how the constitutional design should be in an ethnic diverse state, but also to the question of redistribution. What the central government is granting in revenues to the states is a highly politicized issue. Agbu writes that all parts of the federation are complaining of the lopsideness in the distribution of the national

wealth (2004:40). Ray Ekpu writes that the fundamental problem of Nigeria's federalism still remains the over-centralization of powers and resources in the national government, and the destructive and divisive struggles for the control of the centre that this centralization invariably engenders (1994:6). William Reno (1999) describes Nigeria as a *de facto centralized state* and attributes this to the oil wealth. Power seems to be where the money is, and the federal system we see in Nigeria is then a sort of institutional framework of a centralized national patronage system.

4.3.3 State Exploitation Hypothesis

Colin H. Kahl's (1998) hypothesis proposes that disintegration and manipulation play a part in violence arising from renewable resource scarcity. The elites are given the incentives to exploit by the rewards in the form of resources, and the opportunities to do so because of the system of economic marginalization. To examine if this hypothesis holds any truth in the Niger Delta case, one needs to look at the nature of the society and the state. As we have seen, the very composition of the Nigerian society suggests predatory behaviour of the elites. 70 percent of the population live under the poverty line, and people in the Niger Delta are poorer than the national average.

When the elites are exploiting an adverse situation to profit for themselves, they can be said to be using the state and the neo-patrimonial system to feather one's own nest. As we have seen, the legislature of the federation has in a way cemented the winners and the losers. Such patron-client relationships are a dominant feature in the Nigerian society. One way it is visible, is in the big spending of the patrons. *Political representation rests on the dramatisation of power, at the heart of which lies ostentation or 'showing off'* (Chabal and Daloz 2006:289). Oddly enough from a western view, in the clients eyes this ostentation and display of wealth by the patrons evokes a sense of pride as they feel like they contributed to the patrons riches (ibid:291). In the U.N.'s Human Development report (2005), Nigeria ranks 158 out of 177 countries in an inequality in income or consumption indicator¹², showing that the gap between rich and poor in Nigeria is extremely wide.

¹² Using Gini index to measure inequality within a country.

4.3.3.1 Elites

It is impossible to discuss the democratic project in Nigeria without discussing the role of the Nigerian political elite (Obi 2004b:7). In his article, Kahl (1998) talks about incentives and opportunities for state exploitation. In Nigeria we see that the opportunity for the federal government to exploit is in the constitutional framework as the wealth of the oil production ends up in the hands of the nation's petro-elite. The incentive is fairly obvious. The control of central governmental positions renders you control of national oil wealth. When it comes to opportunity, Gurr writes that economically advantaged groups are better able to use market forces and political influence to maintain their positions (1985:58). Having money and a powerful position makes it easier to maintain this position, and with the networks in place the members of the elite are ensured a steady income.

Obi writes that the Nigerian political elite is a product of Nigeria's tumultuous politics. It has roots in the colonial education and socio-politics, and as such it is a child of history (2004b:7). Chabal and Daloz observes that most Nigerians today are, as they always were, obsessed with securing protection from a patron – not from the state (2006:262). As we can see from this, the neo-patrimonial ways of thinking are deeply rooted in the Nigerian society and very much a part of the way people deal with each other on a day to day basis.

Institutional inclusivity is one of Kahl's intervening variables, and the fact that the states of the Nigerian federation are not included in the national wealth shows the institutional exclusion. The situation in the Niger Delta also proves his major point that states need not totally collapse for population growth and environmental pressure to produce violent internal conflict. Patrimonialism is seen in the way the control of resources is a measure of the ability to exercise power. *The elite, for their part, exploit such personal and informal relations* (Chabal and Daloz 2006:262).

4.3.3.2 Corruption

Okonta and Douglas (2003) describe oil as the stuff of contemporary Nigerian politics. In Transparency International's 2004 annual report, Nigeria ranks as number 144 of the 146 countries in the Corruption Perception Index, with only Bangladesh and

Haiti being more corrupt. In Global Integrity's 2004 report, Nigeria gets a "weak" rating in their public integrity index which tracks corruption, openness and accountability, and they conclude that in Nigeria, corruption is a way of life, especially in government and business. One alarming thing, even though corruption seems to be on the agenda and scandals are given a lot of coverage in Nigerian media, little has resulted from the allegations and very few have actually been prosecuted.

Neo-patrimonial practices of Nigerian politics in a lot of instances take the form of cash handover. The money the clients have to pay the patrons in the formal system in order to get services can be labelled as corruption. *Transparency International defines corruption as the abuse of entrusted power for private gain. This means that democratic institutions are weakened Political costs manifests themselves above all in loss of legitimacy, and of public trust and support* (TI 2004:2). They also say that decisions are taken not for the public benefit but to serve private interest, which in a way is consistent with neo-patrimonial practises where the public and private spheres exist without any real division.

Obi writes that vast sums of petro-dollars are used to privatize state power, to buy off the opposition and to arm and deploy the instruments of state coercion (2004a:5). Human Rights Watch find strong evidence that government officials have given the feuding groups in the Niger Delta money and weapons as a way of spreading fear and ensuring their own victory at the polls in the first free election (HRW 2005a). This really shows the extent of corruption. Bribery, pay offs and even imploring to violence came from top level officials even at the dawn of democracy.

Another example, the relationship between the Nigerian government and the oil companies inflicting the environmental degradation might easily fall under the heading of corruption. The way the Nigerian legislature is formulated in the Petroleum Act, international oil companies need a licence to operate in the country. It is more than likely that this licence practice provides officials with a lucrative income generating project (See ERA 2005). *According to the U.S. Department of Energy, Nigeria's state-owned oil company reported losses of \$4 billion to crime and corruption in 2000 alone* (Klare 2004:124)

4.3.4 Nigerian Democracy

Freedom house (2005) labels Nigeria as being “partly free” in its index of governments. The country must also be said to be relatively new to the concept of democracy being granted civilian rule as late as in 1999 after years of different military leaders. However, in the Map of Freedom they describe Nigeria as transitioning in a negative direction because of decreased freedom of the press and also the increased violence in the Niger Delta. It looks like some of the early optimism for the country after its first election of a civilian president has diminished. Obi points to the centralization of power and the patrimonial networks (2004a:14) when he describes how the struggle for power in Nigeria is really a struggle for money since the control over the oil revenues lies with government control. On the background of the description in the theory chapter these neo-patrimonial networks are characteristics of a democracy in Africa and it can also describe the way the Nigerian state is organized.

Agbu writes that though democracy embodies the recognition and respect of individual, this should not be allowed as an excuse by those who decide to exploit this for individual and group advantages through violent means. Fundamental to finding a sustainable solution to the problem of managing the diversity, is a re-visit to the federal practice (2004:40). The point that Midlarsky (1998) makes, that a democracy cannot sustain long under conditions of extreme inequality, seems to ring true for the case of the Niger Delta where the gap between the poor and the rich is among the widest in the world.

4.3.4.1 Elections

The civilian take-over happened in Nigeria in 1999 and the one crucial step to establish the new democracy was to hold free elections. Obasanjo's People's Democratic Party (PDP) won the majority of seats in both the Senate and House of Representatives. The results of the first election were approved, but there were a lot of objections made. Leading European Union election observers concluded in the Rivers State in the Delta that “the minimum standards for democratic elections were not met” (HRW 2005a:5). Also, one cannot say that the elections happened peacefully. *The transition to democracy in 1999 exacerbated youth militancy as unscrupulous*

politicians hired “thugs” to carry out violence to ensure their victory at the polls (ibid:4). Human Rights Watch have unveiled that militant youth were hired by politicians to terrorise the supporters of the opposition (2005b).

Nigeria made its first peaceful transition from one democratically elected government to another in April 2003, when Obasanjo was re-elected for a second term. Even in this election over 100 people were killed (2005a:4). Freedom House (2005) reports that local and international observers witnessed serious irregularities in the 2003 elections. Some of the irregular behaviour included ballot-box stuffing, multiple voting, falsification of results, and voter intimidation. Interesting is it that the observers maintained that fraud and intimidation were particularly prevalent in the southeast of the country and in the Niger Delta.

4.3.5 Nigerian Adaptation

Put simplistically, adapting to adverse situations and deprivation is the alternative to taking up arms and protesting. Homer-Dixon calls ingenuity ideas applied to solve practical social and technical problems (1995:590). Faced with scarcity and economic marginalization, I will argue that social adaptation to resource scarcity in the Niger Delta can be seen in the widespread practice of illegal bunkering of crude oil among the local population. In fact, Human Rights Watch states that a part of the conflict can be contributed to the illegal oil trading since different armed groups are fighting over the control of territory and bunkering routes (2005a:8). For the people living in the Niger Delta, bunkering and selling oil on the black market is a way of generating profit in the wake of other means of livelihood disappearing because of the oil extraction. Even though illegal and in many cases a way of sponsoring the violence, it is a sign of creativity. In an interview with the leader of NDPVF, he stated “I don’t engage in bunkering, I take that which belongs to me. It is not theft the oil belongs to our people” (ibid).

Another way of looking at adaptation is that the regime in place has to respond to changing demands from the population. The state apparatus has to show ingenuity in order to serve its function. Looking at the new Nigerian democracy’s ability to respond, one example is that the government has not succeeded in providing jobs. It is

safe to say that there are many challenges for Nigerian officials. The adaptation to crisis like low development and environmental degradation are major issues to deal with. As a response to the local demands for greater resource ownership and development in the Delta, president Obasanjo established the Niger Delta Development Commission soon after he took office. This is supposed to use oil money to improve the region's infrastructure, such as schools and health clinics and to create jobs (BBC news 2006). The government has also established a Ministry of Environment. However, the Environmental Resources Managers Ltd's survey of the regulatory framework governing protection of the environment in Nigeria conclude that *most state and local government institutions involved in environmental resource management lack funding, trained staff, technical expertise, adequate information, analytical capability and other pre-requisites for implementing comprehensive policies and programme* (1997:234).

4.4 Summary of Arguments

The case of the conflict and environmental degradation in the Niger Delta in the context of a new Nigerian democracy has now been analysed based on the model derived on the background of the work of the Toronto group, their critics and scholars on democracy in Africa. A summary of arguments is in order. Based on characteristics in the theoretical outline of environmental security and the case of the Niger Delta, it can be no question that there is no safe and generally satisfactory environment favourable to development. Renewable resources are disappearing and habitats are destroyed. Signs of the three different types of scarcities and the following social effects have been made discernible in the Delta case. The case is to a large degree displaying the relevance of Homer-Dixon and colleagues' arguments. There is a presence of grievance and the people in the region live out a big paradox being poorer than average in the area accumulating almost all the riches. There is a complex conflict in the Niger Delta and parts of it have characteristics from the different types of environmental conflict.

The arrow of causality pointing from a democratic regime to the relationship between grievance caused by environmental degradation and violence in my model has

helped to show the winners and the losers in the case by adding the political and economical factors and looking at the circumstances. Nigeria fits the descriptions of an “African democracy” with all of what that implies. The nation has low state capacity making it ill equipped to handle severe environmental degradation, and this can be seen in the lack of appropriate policies. The characteristics of the state, most notably in the federal practices, and the relationship between the state and society with extensive corruption and explorations by the elites are all factors affecting the democratic performance.

5. Conclusion

5.1 The Aim of the Thesis

The question I wished to answer was:

What effect does an African democracy have on conflict arising from environmental degradation? More specifically, I want to investigate if the existence of a democratic regime in Nigeria has any positive effect on the conflict in the Niger Delta arising from the scarcities of resources in the region.

On the basis of this question I developed a model of causal paths based on theory of environmental security and democracy in an African context, this model was used in the analysis.

5.2 Main Findings on Conflict Arising from Grievance over Scarcities

The case I have looked at and analysed does have a lot of the characteristics of an environmental conflict. The Niger Delta being one of the most disrupted habitats on our planet and that makes it highly susceptible to environmental conflict. The frustration expressed from the inhabitants also point to this. More than 10 years after the execution of Ken Saro-Wiwa, his struggle for the environment and minority rights is continuing. The Niger Delta case is quite special when it comes to looking at it in the light of environmental security. First of all there is in fact a serious conflict going on. Secondly, the framework laid out by the Toronto group fits the case very well. But still it is problematic to attribute the cause of the conflict to the environmental conditions alone since there are so many other factors and frustrations in the mix. The first conclusion will therefore have to be that environmental security can only explain the part of the conflict that originates from frustration and grievance felt because of loss of habitat, food, water and means of income. I conclude that elements of supply induced, demand induced, and structural scarcity are present in the Niger Delta situation and these concepts can be used to explain grievance felt by the people affected.

The rebel groups get their funding from the illegal bunkering of oil. This economic opportunity however, is not open for most of the inhabitants in the area, which

live in absolute poverty. The masses do not have the opportunities to rebel even though they experience a high level of grievance. The elites of Nigeria and their practices show that states need not totally collapse in order for population pressures and environmental degradation to lead to conflict. There are opportunities and incentives for the elites to exploit the grievances as they are in a better position to manipulate the market forces to their own advantage. As we have seen, it becomes clear who the winners and losers are in the case. Those who do not possess the means to manipulate their situation stay destitute. And more importantly they don't seem to have the opportunity to act on their grievance.

5.2.1 Theoretical Implications

As we have seen, the framework of Homer-Dixon and the Toronto group works very well to describe the complex situation of degradation, scarcities and their social effects in the Niger Delta, but through my investigation and application of the theory of environmental security I have showed the need for a wider understanding of the concept. Therefore, I have in my effort to look at the causes of this conflict investigated the environmental degradation on a theoretical framework, and added the effects of a regime type as a separate variable with an independent effect to the analysis.

It is difficult to determine the exact cause of conflict. In most cases there is more than one reason behind violence, and this is very much the reality of the Niger Delta case. The region seems to have all the odds against it as far as peace go. Like Cyril I. Obi says, it is often in the intersection of wealth and poverty, and extraction, dispossession and pollution, where violent conflict emerges (2004a:4). This conflict has violence on many levels and feuds between several different actors.

5.3 Main Findings on the Effects of a New Democratic Regime

The newly democratised regime of Nigeria's effect on the relationship on conflict in the Niger Delta arising from environmental scarcity lies in the nature of this democracy and its capacity. In the case of Nigeria we have seen that state capacity is very low, with a centralized federal structure ill equipped for distribution and neo-patrimonial practices making democratic processes as seen in western countries diffi-

cult. Without any real democracy, apart from when the formal institutions of state power are controlled by the 'petro-elite', governance in a constructive or developmental sense cannot be on the social agenda – rather, what exists is misgovernance, the wilful manipulation of state institutions and oil resources and oil resources, to satisfy the economic interests of a transterritorialised hegemonic class that is central to the global accumulation of oil (Obi 2004a:15).

Considering the new democracy in Nigeria, giving people the right to vote and taking the military rulers out of play does not necessarily provide the population with better protection of the environment. Even when facing economic prosperity simultaneously as severe environmental degradation and a booming population, the democratic institutions does not seem to be equipped to handle the serious situation. I conclude that without any real function of the state institutions and redistribution of public funding, just having democratic principles in the constitution can not be said to have any positive effect on the conflict arising from scarcities.

I have seen no real sign of the central government of Nigeria adapting to the challenges it is faced with or that the new democracy is operating in the best interest of the environment. The patterns of public policy that Ted Gurr outlines don't seem to be in place in Nigeria or the Niger Delta. The Nigerian state runs a lucrative business operation in the extraction of oil, a production that has made a country like Norway prosperous. Still the country is the biggest debtor in Africa (The Economist 2006), 70 percent of the population live in poverty, and every part of the administration is haunted by corruption. The economic potential is far from fulfilled. Little value is being added into the Nigerian infrastructure with the revenues derived from the oil export, and the people of the Niger Delta stay poor and without opportunities and also the state capacity is not likely to increase. I conclude that it is the elites, not the local inhabitants of the Niger Delta, which have the opportunities in Nigeria, and they are using them to stay in power – not to better the environmental situation.

5.3.1 Theoretical Implications

Theoretical concepts used to explain the African democratic experience seems to have a large degree of substance when it comes to the new Nigerian democracy. By

including them as contextual factors, the perspective widens, and a larger part of the conflict can be explained. My model catches a lot of the other causes tied to the concept of a democratic regime. We have seen that the different indicators of state capacity, the distributional powers of the so-called federal system, the neo-patrimonial system with economic mismanagement by elites and extensive corrupt practises can not be said to have any positive effect on conflict caused by environmental and demographic pressures.

For the case of the Niger Delta, I find my model of causal links to be more exhaustive than the classic theory of environmental security as it encompasses more factors relevant for the given case. After the advent of democracy in Nigeria steps have been taken in the right direction, but there are few signs that the Nigerian government are handling the problems they are facing in a satisfying way. One could even say that their own system of neo-patrimonialism is working against positive change in the Delta region and the rest of Nigeria because of low state capacity, predatory elites and the extensive corruption. In this case we see that it is the elite and the militants making themselves wealthy by illegal bunkering that have the opportunity to manipulate and to revolt.

As for the possibility for the model's use in other cases, it does bring in some of the factors that the critics of traditional theory of environmental security point to, like regime type and political and economic indicators. I do think it can be used on other cases to generate knowledge and shed light on some links based on the framework theoretical concepts that I have taken from other researchers and used in this analysis even though the Niger Delta is a unique case in many aspects.

I also see a possibility for further use of the concepts to look closer at the situation in the Niger Delta. It could be very interesting to see if the State Exploitation Thesis could be used to say something fruitful about whether or not the authorities in Nigeria actually see the conflict as a positive situation for themselves, as some scholars claim. We have seen in my thesis, there is seemingly little adaptation and willingness to put an end to the situation. With the oil prices being high and the transparency getting overshadowed, the conflict could potentially be profitable for the government and the starting point for a new research question.

Table of Authorities

- AAAS, American Association for the Advancement of Science, Niger Delta Project: *Community-Based Research to Protect Biocultural Diversity in the Niger Delta*, [online] – URL: <http://www.aaas.org/international/ssd/nigerdelta/>
- Adelaya, Abiodun (2006): “Auditors Uncover N168bn Puzzle in Oil Revenue”, *Daily Champion*, May 4.
- African Charter on Human and Peoples’ Rights (1981): Available through Human and Constitutional Rights Documents (HRCDD), [online] – URL: <http://www.hrcr.org/docs/Banjul/afhr.html>
- Agbu, Osita (2004): *Ethnic Militias and the Threat to Democracy in Post-Transition Nigeria*. Research Report 127, Nordic Africa Institute.
- Akepofure, E. A. , M.L. Efere and Prosper Ayawei: *Integrated Grass Root Post-Impact Assessment of Acute Damaging Effects of Continuous Oil Spills In the Niger Delta January 1998 – January 2000, Psycho-Morphological & Empirical Overview* Waado, Urhobo Historical Society [online] – URL: http://www.waado.org/Environment/PetrolPolution/OilSpills/OilSpills_Introduction.html
- Andersen, Svein S. (2003): *Case-studier og generaliseringer*. Bergen: Fagbokforlaget.
- Bassey, Nnimmo: *We thought it was oil, but it was blood*. Poem, [online] – URL: <http://www.essentialaction.org/shell/era/erablood.html>
- Bassey, Nnimmo (2001): “The Land is Dying” Presentation by the Environmental Rights Action/Friends of the Earth, Nigeria at the Association of Nigerian Authors (ANA) 2001 Annual Convention, Port Harcourt, Nigeria October 31st – November 4th 2001. [online] – URL: <http://www.waado.org/Environment/PetrolPolution/TheLandIsDying.html>
- BBC News (2005): “Nigeria Ex-Ruler Warns Obasanjo”, December 30, [online] – URL: <http://news.bbc.co.uk/2/hi/africa/4569250.stm>
- BBC News (2006): “Nigerian oil fuels Delta conflict”, January 25, [online] – URL: <http://news.bbc.co.uk/2/hi/africa/4617658.stm>
- Blaustein, Albert P.: *The U.S. Constitution: Americas Most Important Export*, U.S International Information Programs, [online] – URL: <http://usinfo.state.gov/journals/itdhr/0304/ijde/blaustein.htm>
- Brown, Seyom (1998): “World Interests and the Changing Dimensions of Security”, in Klare, Michael T. and Yogesh Chadrani (ed.) *World Security – Challenges for a New Century*. New York: St. Martin’s Press.
- Brundtland, Gro Harlem (1987): *Our Common Future*. The World Commission on Environment and Development. Oxford: Oxford University Press.
- Bøås, Morten and Karin Dokken (2002): *Internasjonal Politikk og Utenrikspolitikk i Afrika sør for Sahara*. Oslo: Universitetsforlaget.
- Campbell, Greg (2001): *No Amount of Crying Extinguishes a Single Flare in the Niger Delta*, [online] – URL: http://www.waado.org/NigerDelta/Essays/Pollution/Flares_Campbell.html
- Chabal, Patric and Jean-Pascal Daloz (1999): *Africa Works: Disorder as Political Instrument*. Oxford: James Curry.
- Cabal, Patric and Jean-Pascal Daloz (2006): *Culture Troubles: Politics and The Interpretation of Meaning*. London: C. Hurst & Co.
- CIA (2006): *The World Fact Book*, Nigeria, [online] – URL: <http://www.odci.gov/cia/publications/factbook/geos/ni.html>

-
- Countryreports.org, "Country Information, Nigeria" [online] – URL:
<http://www.countryreports.org/country.aspx?countryid=179&countryName=Nigeria>
- Daily Champion (2006): "Oil Production in Danger, Shell warns", January 25.
- Davies, James C. (1962): "Toward a Theory of Revolution", *American Sociological Review*, Vol. 27, No. 1, 5-19.
- Deundey, Daniel (1990): "The Case Against Linking Environmental Degradation and National Security", *Millennium*, Vol. 19, No.3, 461-476.
- Diehl, Paul F. (1998): "Environmental Conflict: An Introduction", *Journal of Peace Research*, Vol. 35, No. 3, Special Issue on Environmental Conflict, 275-277.
- Ebeh, Charity Nebari: *The Ogoni Experience*, Friends of the Earth Finland, [online] – URL:
<http://www.maanystavat.fi/oil/oileng/charity.htm>
- Economist (2006): "Country Briefings, Nigeria", [online] – URL:
<http://www.economist.com/countries/Nigeria/>
- EIA, Energy information Administration (2003): *Nigeria Country Analysis Brief*, Official Energy Statistics from the U.S. Government, [online] – URL:
<http://www.eia.doe.gov/emeu/cabs/nigeria.htm> 1
- EIA, Energy Information Administration (2006): *International Petroleum Information*, US Department of Energy [online] – URL:
<http://www.eia.doe.gov/emeu/international/contents.html>
- Ekeh, Peter P.: *Pictures and Images from Scenes of Oil Spills , Oil Fires, Gas Flares and Other Environmental Damages in Nigeria's Niger Delta - Editors Introduction*, Waado, Urhobo Historical Society, [online] – URL:
<http://www.waado.org/Environment/PhotoGallery/PhotoGalleryPage.html>
- Ekpu, Ray (1994): "Rotational Presidency", *Newswatch*, November 7.
- Environmental Resource Managers Ltd. (1997): *Niger Delta Environmental Survey Final Report Phase 1; Vol 1: Environmental and Socio-Economic Characteristics*. Lagos, September 1997.
- ERA, Environmental Rights Action (2005): *The Shell Report – Continuing Abuses in Nigeria – 10 years After Ken Saro-Wiwa*. Lagos: Environmental Rights Action/Friends of the Earth, Nigeria, [online] – URL:
<http://www.eraction.org/modules/Publications/docs/shellreport.pdf>
- FIOH, Future In Our Hands (2006): *Statoil in Nigeria – Transparency and local content*. Oslo: Fremtiden I Våre Hender. Report number 1/2006.
- Freedom House (2005): "Map of Freedom 2005, Nigeria", [online] – URL:
<http://www.freedomhouse.org/template.cfm?page=22&year=2005&country=6804>
- Gausset, Quentin and Michael A. Whyte (2005): "Introduction", in Gausset, Quentin, Micael A. Whyte and Torben Birch-Thomsen (ed.) *Beyond Territory and Scarcity – Exploring Conflicts over Natural Resource Management*. Stockholm: Elanders Gotab.
- Gilmore, Elizabeth, Nils Petter Gleditsch, Päivi Lujala and Jan Ketil Rød (2005): "Conflict Diamonds: A New Dataset" *Conflict Management and Peace Science*, Vol. 22, Nr.3, Fall 2005, 257-272.
- Gleditsch, Nils Petter (1998): "Armed Conflict and the Environment: A Critique of the Literature", *Journal of Peace Research*, Vol. 35, No. 3, Special Issue on Environmental Conflict, 381 – 400.
- Global Integrity (2004): *Global Integrity Country Reports*, Nigeria, [online] – URL:
<http://www.globalintegrity.org/2004/country.aspx?cc=ng>
- Goldstone, Jack A. (2001): "Demography, Environment, and Security", in Diehl, Paul F. and Nils Petter Gleditsch (ed.) *Environmental Conflict*, Boulder: Westview Press.

- Guardian (2006): "Crisis in the Niger Delta (editorial)" January 24th, [online] – URL: <http://www.afrika.no/Detailed/11320.html>
- Gurr, Ted Robert (1985): "On the Political Consequences of Scarcity and Economic Decline", *International Studies Quarterly*, Vol. 29, No. 1, 51 – 75.
- Gurr, Ted Robert (1993): *Minorities at Risk A Global View of Ethnopolitical Conflicts*. Washington, DC: US Institute of Peace.
- Harmon, Zak (1997): *World Bank, Big Oil and the Niger Delta*, [online] – URL: <http://forests.org/archive/africa/nigdelta.htm>
- Hauge, Wenche and Tanja Ellingsen (1998): "Beyond Environment Scarcity: Causal Pathways to Conflict", *Journal of Peace Research*, Vol. 35, No. 3, Special Issue on Environmental Conflict, 299-317.
- Hellevik, Ottar (2002): *Forskningsmetode i Sosiologi og Statsvitenskap*, Oslo: Universitetsforlaget.
- Homer-Dixon, Thomas (1991): "Environmental Change and Acute Conflict", *International Security*, Vol. 16, No.2 (Autumn, 1991), 76-116.
- Homer-Dixon, Thomas (1994): "Environmental Scarcities and Violent Conflict: Evidence from Cases", *International Security*, Vol.19, No.1, 5-40.
- Homer-Dixon, Thomas (1995): "The Ingenuity Gap: Can Poor Countries Adapt to Resource Scarcity?", *Population and Development Review*, Vol.21, No.3, 587-612.
- Homer-Dixon, Thomas (1998): "Environmental Scarcity and Intergroup Conflict" in Klare, Michael T. and Yogesh Chaudrani (ed.): *World Security – challenges for a new century*. Palgrave Macmillan
- Homer-Dixon, Thomas and Jessica Blitt (1998): *Ecoviolence*, Oxford: Rowman & Littlefield Publishers Inc.
- Homer-Dixon, Thomas (1999): *Environment, Scarcity, and Violence*, Princeton: Princeton University Press.
- HRW, Human Rights Watch (1999): *The Price of Oil – Corporate Responsibility and Human Rights Violations in Nigeria's Oil Producing Communities*, New York: Human Rights Watch Report January 1999, [online] – URL: <http://www.hrw.org/reports/1999/nigeria/>
- HRW, Human Rights Watch (2002): *The Niger Delta: No Democratic Dividend*. New York: Human Rights Watch Report October 2002, Vol. 14, No. 7 (A).
- HRW, Human Rights Watch (2003): *The Warri Crisis: Fueling Violence*. New York: Human Rights Watch Report November 2003, Vol. 15, No. 18(A).
- HRW, Human Rights Watch (2005a): *Rivers and Blood – Guns, Oil and Power in Nigeria's Rivers State*, Human Rights Watch Briefing Paper, February 2005, [online] – URL: <http://hrw.org/backgrounder/africa/nigeria0205/>
- HRW, Human Rights Watch (2005b): "Nigeria: Fight for Oil Wealth Fuels Violence in Delta", London: Human Rights News, February 4th 2005, [online] – URL: <http://hrw.org/english/docs/2005/02/03/nigeri10114.htm>
- Ibrahim, Jibrin (2000): "The Transformation of Ethno-Regional Identities in Nigeria", in Attahiru Jega (ed): *Identity Transformations and Identity Politics under Structural Adjustment in Nigeria*. Stockholm: Elanders Gotab
- Igbatayo, Samuel A. (2004/2005): *Nigeria: armed conflict and implications for forest management in the Niger Delta*, European Tropical Forest Research Network (ETFRN) Newsletter, Issue No. 43/44 Winter 2004/2005. [online] – URL: http://www.etfrn.org/ETFRN/newsletter/news4344/nl43_oip_2_10.htm

- Ikpatt, Clement: *The Niger Delta: Problems and Solutions: The Equilateral Resource Control (ERC) model as an Alternative Dispute Resolution (ADR) concept*, The Niger Delta Congress (NDC), [online] – URL: http://www.nigerdeltacongress.com/narticles/niger_delta_problems_and_solutio.htm
- IRIN, Integrated Regional Information Networks (2001): *NIGERIA: IRIN Focus on the Simmering Conflict in the Niger Delta*, [online] – URL: http://www.irinnews.org/report.asp?ReportID=18255&SelectRegion=West_Africa
- IFES, International Foundation for Election Systems: “Nigeria Country Information”, [online] – URL: http://www.ifesnigeria.org/html/country_information.html
- Kahl, Colin H. (1998): “Population Growth, Environmental Degradation, and State-Sponsored Violence: The Case of Kenya, 1991-93”, *International Security*, MIT Press 23 (2) 1998, 80 – 119.
- Klare, Michael T. (2002): *Resource Wars – The new Landscape of Global Conflict*. New York: Henry Holt and Company.
- Klare, Michael T. (2004): *Blood and Oil – How America’s Thirst for Oil is Killing us*. London: Clays Ltd.
- Kolawole, Are (2002): “Access to Agricultural & Pastoral Resources in Nigeria” in Toulmin, Camilla, Phillippe Lavigne Delville og Samba Traorè (ed): *The Dynamics of Resource Tenure in West Africa*. London: James Currey Ltd.
- Kokole, Omari H (1994): “The Politics of Fertility in Africa”, *Population and Development Review*, Vol. 20, Supplement: The New Politics of Population: Conflict and Consensus in Family Planning, 73 - 88.
- Levy, Marc A. (1995): “Is the Environment a national Security Issue?”, *International Security*, Vol. 20, No. 2, 35-62.
- Médard, Jean-Francois (1996): “Patrimonialism, Neo-Patrimonialism and the study of the Post-colonial State in Subsaharian Africa”, in Sercher Marcussen, Henrik (ed) *Improved Natural Resource Management – the Role of Formal Organizations and Informal Networks and Institutions, International Development Studies 1996*, 76 – 97.
- Midlarsky, Manus I (1998): “Democracy and the Environment: An Empirical Assessment”, *Journal of Peace Research*, Vol. 35, No. 3, Special Issue on Environmental Conflict, 341-361.
- Natufe, Igbo: *Nigeria – Towards Reason in Political Discourse*, The Niger Delta Congress, [online]–URL: <http://www.nigerdeltacongress.com/narticles/nigeria%20towards%20reason%20in%20political%20discourse.htm>
- NNDC, Niger Delta Development Commission: *The Niger Delta: A Brief History*, [online] – URL: http://www.nddconline.org/The_Niger_Delta/
- Obe, Ayo (2004): “Why we need a sovereign national conference”, *Guardian Newspaper*, [online] – URL: <http://news.biafranigeriaworld.com/archive/2004/jun/01/0022.html>
- Obi, Cyril I. (2004a): *The Oil Paradox: Reflections on the Violent Dynamics of Petro-Politics and (Mis)Governance in Nigeria’s Niger Delta*. Africa Institute Occasional Paper No 73. Africa Institute of South Africa.
- Obi, Cyril I. (2004b): *Nigeria: Democracy on Trial*. Text of Lecture organized by the Swedish Development Forum, Stockholm, Tuesday September 14, 2004. [online] – URL: <http://www.nai.uu.se/media/newsletter/0411obi.pdf>
- Okonta, Ike and Oronto Douglas (2003): *Where Vultures Feast – Shell, Human Rights, and Oil*. London: Verso.
- Okonta, Ike (2005): “What the Hanged Man Said”, *Chimurenga*, Nr. 8, We are All Nigerian, 2005, South Africa.

- Onduku, Akpobibibo (2001): *Environmental Conflicts: The case of the Niger Delta*, A presentation at the One World Fortnight Programme Organised By the Department of Peace Studies, University of Bradford, United Kingdom 22nd November 2001 [online]–URL: <http://www.waado.org/NigerDelta/Essays/ResourceControl/Onduku.html>
- Odunfa, Sole (2005): "Nigeria's Counting Controversy", *BBC Focus on Africa Magazine*, December 14, [online] – URL: <http://news.bbc.co.uk/2/hi/africa/4512240.stm>
- Oduniyi, Mike and Onyebuchi Ezigbo (2006): "Niger Delta Threat Raises Oil Prices to \$70 per Barrel", *This Day*, April 13.
- Oduniyi, Mike and Efem Nkanga (2006): "Shell Shuts in 115,000 bpd Output", *This Day*, January 17.
- Olori, Toye (2005): "A Season of Ethnic Discontent", *Inter Press Service*, November 18.
- Osefoh, F.C. (2004): "Noise Pollution and Its Effects on People", in Mba, H. Chike, Smart N. Uchengbu, C.A. Udeh and Leonard N. Muoghalu (ed.) *Management of Environmental Problems and Hazards in Nigeria*. Burlington: Ashgate.
- Percival, Val and Thomas F. Homer-Dixon (1998): "Environmental Security and Violent Conflict: The Case of South Africa", *Journal of Peace Research*, Vol. 35, No. 3, Special Issue on Environmental Conflict, 279 – 298.
- Pirages, Dennis (2002): "Demographic Challenges to World Security" in Klare, Michael T. and Yogesh Chaudrani (ed.) *World Security – challenges for a new century*. Palgrave Macmillan
- Reno, William (1999): "Crisis and (No) Reform in Nigeria's Politics", *African Studies Review*, Vol. 42, No.1, 105 – 124.
- Ross, Michael (2004): *Mineral Wealth and Equitable Development* – World Development Report Background Paper. [online]– URL: <http://www.polisci.ucla.edu/faculty/ross/MineralEquitableDev.pdf>
- Schwartz, Daniel M, Tom Deligiannis and Thomas F. Homer-Dixon (2000): "The Environment and Violent Conflict: A Response to Gleditsch's Critique and Some Suggestions for Future Research", *Environmental Change and Security Report*. Issue 6.
- Simon, Julian L, (1981): *The Ultimate Resource*, Princeton NJ: Princeton University Press.
- Shezi, Ayanda (2006): "Kidnap Drama Hits World Oil Markets", *Business Day*, February 20.
- Soyinka, Wole (1996): *The Open Sore of a Continent-A Personal Narrative of the Nigerian Crisis*. Oxford: Oxford University Press.
- Toronto Group (1994-96): *Key findings of the Project on Environment, Population and Security*, [online] – URL: <http://www.library.utoronto.ca/pcs/eps/descrip.htm#Key>
- Toronto Group (1993-97): *Key findings of the Project on Environmental Scarcities, State Capacity, and Civil Violence*, [online] – URL: <http://www.library.utoronto.ca/pcs/state/keyfind.htm>
- Transparency International (2004): *Transparency International Annual Report*, Berlin: Transparency International, [online] – URL: http://www.transparency.org/publications/annual_report
- UNEP, United Nations Environment Program (1977): *Declaration of the United Nations Conference on the human Development, Stockholm declaration*, United Nations Environment Program, [online] – URL: <http://www.unep.org/Documents.multilingual/Default.asp?DocumentID=97&ArticleID=1503>

-
- United Nations (2005): *Human Development Report 2005, Inequality in income or Consumption*, United Nations Development Program, [online] – URL: <http://hdr.undp.org/statistics/data/indicators.cfm?x=148&y=1&z=1>
<http://hdr.undp.org/reports/global/2005/>
- Waado, Urhobo Historical Society: *A Student's Guide to Oil Spills*, Information from the Oil Spills Intelligence Report, Cutter Consortium- [online] – URL: <http://www.waado.org/NigerDelta/Essays/Pollution/StudentsGuide.html>
- Watts, Michael (2004): “Violent environments: petroleum conflict and the political ecology of rule in the Niger Delta, Nigeria” in (ed.) Peet, Richard and Michael Watts (2004): *Liberation Ecologies*. Environment, Development, Social Movements. London: Ruthledge.
- Wikipedia, the Free Encyclopaedia: “The Niger Delta” [online] – URL: http://en.wikipedia.org/wiki/Niger_delta
- World Bank (1995): *Defining an Environmental Strategy for the Niger Delta*, May 25 1995, Volume 1, Industry and Energy Operations Division, West Central Africa Department.
- Østerud, Øyvind, Kjell Goldmann, Mogens N. Pedersen (1997): *Statsvitenskapelig Leksikon*. Oslo: Universitetsforlaget.